The Allen Consulting Group

Assessment of the economic and employment outcomes of the Working on Country program

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Report to the Department of Sustainability, Environment, Water, Population and Communities

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Executive summary

This study examines and quantifies (where possible) the economic and employment outcomes and impacts of the Working on Country Indigenous ranger program.

This study found that the true cost of Working on Country was significantly (up to 23%) lower than the budget cost due to reduced welfare and increased tax revenue. This important result is driven in part by the large pool of unemployed labour in the remote and regional parts of Australia supported by the program. As such, Working on Country would perform better than similar programs that work in areas with higher workforce participation or lower unemployment.

Working on Country was found to have a range of other benefits in terms of direct outputs, as well as significantly beneficial outcomes, including:

- Significant improvements in the median gross income for Working on Country participants, bringing their income above the gross median income for all non-Indigenous Australians
- Nationally, Working on Country contributes to a significant increase in income attributable to labour of between $14.8 million and $27.4 million
- At a State level, the majority of direct benefits accrue to the Northern Territory and Queensland, however when multiplier effects are considered the shares to Victoria and New South Wales increase greatly.
- At a local level, there are benefits to local communities that extend beyond those directly employed in the program. For example, the service sectors in regional and remote communities sees benefits from this program. Of the total gains from this program, more than $12 million accrues to the areas serviced by the program.

The proportion of spending by state under Working on Country was found to be broadly consistent with both the distribution of Indigenous land holdings and the distribution of the Indigenous population outside of metropolitan areas.

Comment on methods

At the centre of this study is a detailed input-output multiplier analysis, which has been used to determine the true outcomes, rather than outputs of this program. The difference between outputs and outcomes is that outputs are the direct (often tangible) results of using resources (inputs), whereas outcomes are the achievements arising from the outputs. The study has also quantified, where possible, other impacts of the program including the associated socioeconomic gains and environmental benefits.

Multiplier analysis examines the flow-on benefits to increased income or output of a given sector on the wider economy. Where additional income is generated (in this case through the working on country program), this is spent on a range of goods and services – and the producers of these goods and services that need to expand accordingly. Type I and Type II multipliers have been calculated for the program. These differ as Type I multipliers include the first round of direct and indirect effects of the program, whereas Type II multipliers also include induced effects across the whole economy of the additional income required to meet economic expansion.

True costs of the program

The true cost of a program considers the impacts of the annual cost of the program, increased taxation revenue and reduced welfare payments to achieve a broad economic true cost. In 2009-10 the budget or book cost of Working on Country was $41.2 million, however the true cost was found to be between $34 million (Type I multipliers i.e. direct and immediate indirect effects) and $32 million (Type II multipliers i.e. induced effects across the whole economy). This means that due to the flow-on benefits of the program, at least 17 to 23 per cent of the book cost of the program is recouped.

Working on Country will also compare favourably to other environmental programs because it is concentrated in areas with high rates of unemployment. For example, the National Green Jobs Corps (DEEWR) targets Australians in urban areas but would have a lower offset to the book cost of the program, as the employment under this program is more likely to be taking jobs from other sectors rather than generating new employment.

The bulk of employment generated under Working on Country is new employment for previously jobless individuals.

Environmental and socioeconomic benefits to Working on Country

It should be recognised that the above figures are baseline measures only, and that they ignore some important aspects of the program. When these socioeconomic benefits are considered it is likely that there would be additional benefits beyond those quantified, however quantifying these contributions is outside the scope of this study.

Working on Country is specifically targeted at environmental outcomes:

- Non-market valuation of environmental goods is difficult to quantify and is often ignored yet this represents a substantial benefit of the program.

Working on Country will have socioeconomic benefits beyond the employment, environmental and calculated multiplier benefits:

- The Working on Country program is likely to lead to increases in general public health and reduce criminal activity.
  - Employment is strongly linked to health and savings could be expected in terms of the costs of public health care, or increases in worker productivity where worker health is improved (Doyle et al., 2005).

  - Crime is strongly linked to unemployment, meaning that reductions in unemployment in the areas where Working on Country takes place may also see a commensurate reduction in criminal activity (Borland and Hunter, 2000).

- Another socioeconomic aspect of the program is that Working on Country explicitly aims to protect Indigenous heritage and knowledge.
  - The preservation and passing on of such knowledge is a powerful force in terms of fostering social capital and therefore could have the potential to increase labour force participation outside of the program itself in the broader community.
  - Increases in social capital are also thought to decrease antisocial behaviour by increasing the importance of informal punitive measures such as social exclusion (Hunter, 2000).

Calculated benefits of Working on Country

The direct output of the Working on Country program relates primarily to:

- *Spending* — In total around $243.1 million of funding has been budgeted for the Working on Country program.

Spending on the Working on Country program increased markedly over the first 3 years since its inception in 2007/08 and is projected to remain relatively stable through to 2013.

In 2010/11 just over $50 million of funding had been budgeted.

- *Wages* — The full time equivalents of the daily wages paid under the Working on Country program highlight significant improvements on the median gross income for Indigenous people of $278 per week, bringing Working on Country participants above the median gross income for all non-Indigenous Australians, and well above minimum wage (ABS, 2010).
- *Employment* — Nationally 834 people were employed[1] as a result of the Working on Country program in 2009/10. Of these employees 781 were Indigenous.

Multiplier analysis has been used to examine the outcomes of the program. The results of this multiplier analysis have been considered across three areas:

- *National results* — The National Results indicate that there is a significant increase in income attributable to labour that arises from the Working on Country program. In the Type I (expansion of production) case income rises in aggregate terms by $14.8 million throughout the economy. In the Type II (benefits from additional income) case, the aggregate impact is $27.4 million.
- *State results* — The majority of direct benefits accrue to the Northern Territory, Queensland and Western Australia. In terms of direct benefits, New South Wales and Victoria receive 7 and 1.5 per cent of the benefits respectively.

[1] Number of individuals employed in the program, rather than FTE's.

[2] Wierenga M. 2003, A brief introduction to environmental economics, ELAW August 2003

Where the multipliers (flow on impacts) are taken into account, even with the local and regional biases present, there is significant growth in the share of the benefit accruing to New South Wales and Victoria, taking in a combined 30 per cent of the benefits when a Type II multiplier is used.

- *Remote Centre Impacts* —The total benefits accruing to the remote areas are $12.8 million of Type 1 benefits and $16.5 million of Type II benefits.

These additional benefits are significantly smaller than the national benefits, as there are significant benefit 'leakages' from these remote areas to the rest of the country.

Chapter 1

This study

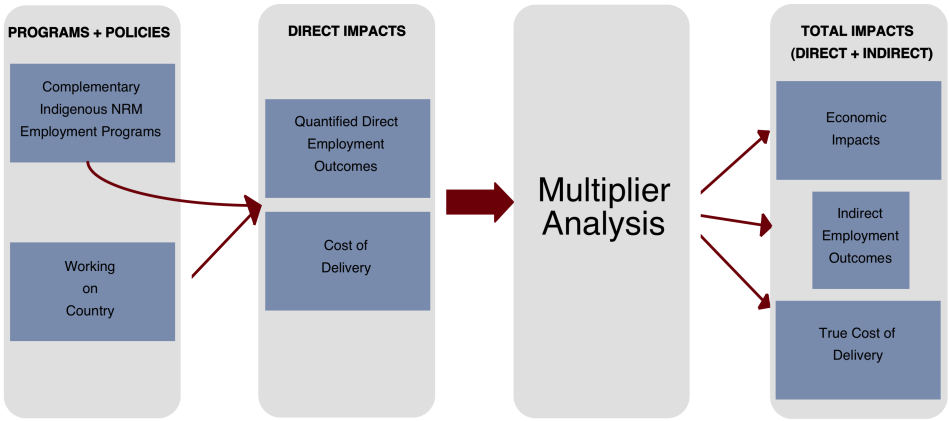
The Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) requested that the Allen Consulting Group prepare a report to quantify (where possible) the outputs and outcomes of the Working on Country program.

This study examines and quantifies (where possible) the impact of the Working on Country program, a component of the Australian Government's Caring for our Country initiative (background to the program can be found in Appendix A). It assesses the impacts of the program, examining both outputs as well as outcomes. Outputs are the direct (often tangible) results of using resources (inputs), whereas outcomes are what are achieved from outputs — for example an output of Working on Country funding may be the creation of a job, but the outcome is the deeper economic, social and environmental impacts of that job. Program evaluations should always focus on outcomes rather than outputs.

The study has been based on the impact evaluation framework illustrated in Figure 1.1.

Figure 1.1

IMPACT EVALUATION FRAMEWORK



Source: Allen Consulting Group, 2011

At the centre of this study is a detailed input-output multiplier analysis, which has been used to determine the true outcomes, rather than outputs of this program. An input-output multiplier in this context allows the analysis of the flow on impacts of some external shock to a regional economy.

The remainder of this study examines the impacts of the Working on Country program. Chapter 2 examines the approach to this program evaluation, including the use of multiplier analysis, measuring socioeconomic gains and methods for the evaluation of environmental outcomes. Chapter 3 provides an overview of the direct outputs of the program. Chapter 4 outlines the outcomes of the program by detailing the results of the multiplier analysis and Chapter 5 provides conclusions.

Chapter 2

Methodology and Limitations

In assessing the outcomes of the Working on Country program it is important to understand that the program is striving to achieve two primary aims— the first to facilitate education, training and employment for Indigenous Australians and the second to protect and conserve the environment. The assessment examines both the direct outputs of the program (Chapter 3) and the indirect outcomes (Chapter 4). This chapter describes the approach used to measure the impacts and the limitations associated with their measurement. Specifically, it describes the use of multiplier analysis, the measurement of socioeconomic gains and the approach to valuing environmental impacts.

2.1 Multiplier Analysis

The primary formal analysis of the Working on Country program will be the Multiplier Analysis. This will quantify the direct impact that the project has at a community level, and gives an indication of the likely effects of the increased income beyond the first level benefits to wage recipients. The model used for the analysis is known as an Input-Output Multiplier Model (I-O model). The input-output multiplier model is designed such that it will determine the total outcomes of the program as opposed to direct outputs of the project such as job creation or income. The ultimate hope for the program is that it will create a virtuous cycle of economic activity, which will filter through to all aspects of Indigenous communities.

Conceptually, the Working on Country program is modelled as a shock to the regional economy in order to calculate the 'ripple effect' of the program in terms of regional outcomes. The I-O model distinguishes between the outputs and *outcomes* of a shock. Outputs are the direct (often tangible) results of using resources (inputs), whereas outcomes are what are achieved from outputs on a secondary level. The ripple effect is the sum of the indirect effects, or outputs of a program or policy. In other words, the regional effects will be greater than the sum of total job creation.

The process can be thought of as follows; the injection of capital into the economy will lead to increased demand for goods and services (among others), which will lead to greater demands on suppliers and so on.

The Working on Country program is focussed on environmental outcomes which promote job creation in remote and regional Indigenous communities. Given that government spending accounts for a very high proportion of Indigenous employment (and therefore household income) in many rural areas, it is also a crucial input for local private businesses because of its role in consumer spending. Therefore changes to the level of government spending are likely to have a very large impact on the local economy and at minimum the I-O model will give us a basic indication of what to expect.

How does the Input-Output model work?

The model assumes given linkages between sectors and uses a matrix representation showing how output of one industry is an input in other industries. This format assumes a fixed ratio between industries; i.e. how dependent each industry is on all others in the economy both as a demander and a supplier of goods and services. The matrix depicts the flows between industries, with columns depicting the amount of all intermediate inputs into an industry's output in the form of goods and services. The rows show those parts of an industry's output that are absorbed by other industries (McLennan, 1996). On a macroeconomic scale this requires input-output tables to be produced, requiring a large amount of data. This often means that calculations can only be made based on a model that is already 2 or 3 years old.

Output, Income and Employment Multipliers:

The output multiplier for an industry is defined as 'the total value of production by all industries of the economy required to satisfy one extra dollar's worth of final demand for that industry's output' (McLennan, 1996). The main concepts of the multiplier analysis are:

- *The initial output effect* —the initial requirement for an extra dollar's worth of output of a given industry and is, by definition, equal to one in total for all industries.
- *The first round multiplier* — the induced production required in order to produce the initial output effect. These increases in production will then induce secondary rounds of production, and so on. A distinction is made between production that is necessary to generate first round output and the actual first round output itself.
- *Industrial support effects* — increases in output needed to generate first round output and are the sum of all multipliers in other industries due to the increase in production.
- *Simple Multipliers* — the term used to describe the total effects of the initial multiplier and first round induced production.
- *Production induced effects* — the impacts of the second round and the subsequent rounds, when separated out from the initial and first round impacts.
- *Consumption-induced effects* —another level of impact, which occurs because the household sector will receive wages and salaries due to the higher production. This then stimulates the consumption of goods and services.
- The sum of all of the above is the *total multiplier effect*.

The concepts explained above are explained in terms of output, but they can also relate to income and employment or imports. The income multiplier for a particular industry is defined as 'the total value of income from wages, salaries and payments required to satisfy a dollar's worth of final demand for the output of that industry' (McLennan 1996).

Employment multipliers are a similar concept to income multipliers, but instead are determined by dividing the number of employed persons by the level of production in an industry. Import multipliers are calculated by dividing sector total imports y sector output. The seven categories of multiplier effects also pertain to income employment and imports.

There is also a more common jargon relating to multipliers, which terms them Type I and Type II multipliers. Type I multipliers are the initial impacts and the first round impacts, whereas Type II multipliers include the production-induced effect and the consumption-induced effect. Some of the limitations to I-O models are discussed in Box 2.1.

Box 2.1

LIMITATIONS OF THE INPUT-OUTPUT MODEL

The Input-Output model assumes fixed coefficients implying that the industrial structure remains the same in spite of the shock. It is easy to see that that this is slightly unrealistic for economy wide shocks, (depending of course on the type of shock) but this is also quite a broad assumption to make in more microeconomic analyses because such relationships are more volatile on a smaller scale.

Another common issue with the I-O model is that supply side constraints are not considered. Where limitations to inputs exist, shocks can induce a change in prices (the scarcity value of some inputs will be higher), which will then impact consumption patterns of both producers and consumers. This is probably less likely to occur in this particular case because there are high levels of surplus labour in most of the regions.

Input-Output analysis assumes fixed coefficients in production, meaning that in each sector the ratios of various inputs to the output of the sector do not change depending on the scale of production. This is a computational simplification, however it is easily applicable to the Working on Country program because the outcomes of the project are mostly directly related to the number of workers. Many of the programs involve individual based work and as such the only economies of scale to be gained occur with project capital inputs such as vehicles or boats. Further, all projects are done on a sufficiently small scale to make this assumption credible.

Input-Output Model findings will tend to overestimate the effects of a shock. This is due to the fact that the technique uses average responses, rather than marginal responses, has no supply side constraints and cannot account for changes in prices. On the positive side, it is easy to see how result were derived, and also, despite its limitations, it is pretty much on par with other types of models.

Source: McLennan (1996)

2.2 Measuring socioeconomic gains

The Working on Country program is likely to have flow on socioeconomic benefits beyond the immediate job creation and environmental protection outcomes achieved by the program. The two most obvious areas where such benefits could be anticipated are increases in general public health and reductions in criminal activity.

A number of studies have looked at the importance of employment in creating and maintaining a healthy lifestyle. Conversely, there is a significant body of statistical evidence linking unemployment with unhealthy lifestyle choices, as well as criminal activity and general anti-social behaviour. Quantifying the impact of the Working on Country program on health and crime is difficult and in this case the difficulties are exacerbated by data limitations. However, improvements in employment rates created by the Working on Country program can be hoped to relieve some of the symptoms of unemployment such as likelihood to commit a criminal offence, or general levels of alcohol consumption.

This section discusses the impact of the program on cultural heritage, health, and crime. It then discusses the limitations and difficulties associated with the measurement of these impacts. However, despite these limitations, the Working on Country program's contributions to savings through health, crime reduction and cultural association mean that the reported 20 per cent recuperation of costs is likely to be a very conservative estimate.

Box 2.2

SOCIOECONOMIC RETURN

'Socioeconomic' is an umbrella term, which can be used to refer to several different aspects of a community or society. Socioeconomic returns can cover improvements in conventional measures such as GDP, literacy, life expectancy or employment, but may also be extended to more intangible concepts such as dignity, personal freedom or (more recently) quality of life or happiness. Socioeconomic returns are often measured in response to a base case scenario of some kind and often involve the concept of social time preference. The idea of a social discount rate is an attempt to incorporate the time preferences of future generations and is particularly relevant for the valuation of environmental goods.

Source: Campbell H., and Brown, R., 'Cost Benefit Analysis (2003)

Cultural Heritage and Knowledge

An important aspect of the Working on Country program is that it specifically focuses on culturally significant heritage protection. Analyses of the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) have shown that cultural attachment in Indigenous people leads to better outcomes in a range of social indicators including self assessed health, substance abuse, incidence of arrest, employment and educational attainment. Dockery (2011) recognises that there is also a reverse causality at play here in that an improvement in socioeconomic outcomes is also likely to allow people to engage with their culture. Culture can be defined as

> …`those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation.'
>
> (Guiso, Sapienza and Zingales (2006:2) in Dockery 2011 p 4).

The Working on Country program has a specific mandate to protect heritage areas and is therefore likely to enhance cultural attachment. Initiatives which enhance cultural preservation or community capacity building are difficult to value and as such are seen as secondary to conventional socioeconomic indicators and so might not be accounted for when assessing some of the achievements of the program. A significant body of research into abstract economic measures such as wellbeing and social capital is now well established (Dolan et al., 2007) and should be seen as an important indicator of policy success.

Health

The World Health Organisation has recognised that employment can have significant health benefits, particularly in the area of mental health. This includes factors such as having structured time, social contact and self esteem arising from job satisfaction. Conversely, the detrimental effects of unemployment on health include those associated with poverty, poor nutrition and the stress of financial problems.

Lifestyle choices that are detrimental to individual health (especially relating to the consumption of alcohol and smoking) are also strongly linked to unemployment (Doyle et al., 2005). Further, the effects of unemployment are likely to spill over into households and social circles or family life. For young people the effects may not necessarily manifest themselves physically, but may be seen in lower levels of self-rated competence, activity, happiness and life satisfaction, and high levels of anger, depression or helplessness (Graetz, 1993). Unemployment can also trigger health problems that might hinder future employment (Ross, 1993).

The increase in employment due to the Working on Country program can be expected to increase health outcomes in Indigenous Australians. A study on self-assessed health in Indigenous communities by Ross (2006) looking specifically at the relationship between Health and Labour force status suggests that Indigenous Australians involved in mainstream employment are "significantly healthier and have fewer disabilities than those in Community Development Employment Program (CDEP) employment" (Ross 2006). Table 2.1 looks at the differences in self assessed health status for Indigenous Australians who are either employed, unemployed, part of the CDEP or not in the labour force (NILF).

Table 2.1

SELF-ASSESSED HEALTH AND EMPLOYMENT STATUS

Health status	Unit	Mainstream Employment	CDEP Employment	Unemploy-ment	Not in labour force
Population	No.	96,048	34,230	38,698	112,727
Excellent	%	22.0	19.8	17.0	13.7
Very good	%	32.3	27.8	29.4	20.0
Good	%	31.8	38	33.2	31.1
Fair	%	12.1	10.7	18.2	21.8
Poor	%	1.8	3.7	2.1	13.4
Has a disability or long-term illness	%	31.2	24.4	35.2	48.8

Source: Ross (2006)

When comparing CDEP participants and unemployed Indigenous Australians, their self-assessed health statuses were identical for practical purposes (i.e. differences were not statistically significant). This appears to undermine the view of Dockery and Milsom (2008) that participants or employees of CDEP projects have not been viewed as social security recipients. The Working on Country program fundamentally differs from the CDEP in that all funding is delivered though a grant system which encourages Indigenous initiative and hence ownership of the program. It can be hoped that issues of employment/welfare classification that were associated with the CDEP will be overcome by the Working on Country program.

Potential Savings in Public Health Expenditure and Productivity Gains

In evaluating the health impacts of Indigenous employment programs it is also important to consider the cost savings in terms of public health care. The total health expenditure per capita for Indigenous Australians in 2005 was nearly double that of the national average. Further, approximately 3% of total health expenditure Australia wide was spent on Indigenous Australians. An Access Economics study of projected savings to 2029 revealed a potential $1.3 billion (2009) saving in health expenditure if Indigenous Australians were on par with national averages in health indicators (Access Economics, 2008).

On a smaller scale, a study by Taylor and Stanley (2005) found that significant economic losses were being faced as a result of lower life expectancies (especially during peak productive years), for residents of the Thamarrurr Region. They further point to economic losses in terms of caring for sick relatives, or marginal productivity losses of those affected by ill health, which are difficult to measure. From a microeconomic perspective these are all costs that the Working on Country program will abate. It should be noted that such costs are unlikely to be recognised empirically due to difficulties in measurement and data limitations and as such some impact of the Working on Country program is likely to be underestimated.

Crime

Since the publication in 1968 of Gary S. Becker's seminal work 'Crime and Punishment: An economic approach', economists have viewed crime as a rational decision based on expected outcomes of criminal activity, as discussed in Box 2.3. This obviously includes the certainty and severity of punishment, but perhaps more importantly it includes the range of alternative income sources available to potential criminals. From the evidence, it is clear that a history of criminal behaviour is strongly linked to unemployment, suggesting a vicious cycle of criminal activity. Myers (1998) argues that youth employment opportunities in particular can help to reduce crime and that increased crime in Indigenous communities has its roots in labour market deficiencies faced by Indigenous Australians.

Box 2.3

CRIME AND SOCIAL CAPITAL

At a basic level, most economic models of crime view it as a rational choice taken by individuals comparing the expected outcomes of different decisions. The returns to becoming a criminal outweigh those of not becoming one. If one includes a social component in this then high levels of social capital in a community can decrease the benefits of becoming a criminal by increasing the cost of guilt or social ostracism.

However, the returns to becoming a criminal increase 'as the number of other individuals who choose criminal behaviours increases'. This theory explains in large part the variation of crime rates across regions that are otherwise quite similar in terms of other socioeconomic characteristics. Calvo and Zenou (2004) show that denser social networks may increase aggregate crime levels by improving information sharing between criminals. Weibull and Villa (2005) point out that the effectiveness of social norms in reducing crime can also be reduced in this context.

Source: Calvo and Zenou (2004) and Weibull and Villa (2005) in Buonanno et al. (2009)

Indigenous people have much higher rates of contact with the criminal justice system and are over-represented in the prison system, as outlined in Box 2.4. These rates may be both a contributing factor to, and an outcome of, incumbent disadvantages faced by Indigenous people across a range of social factors, not least of which is employment. This creates a viscous cycle because being unemployed may lead to drinking, which increases the probability of being arrested for offences relating to drunkenness, and a person who has been arrested and/or convicted of an offence may then find it difficult to find employment because of the surrounding stigma (Borland and Hunter, 2000). To put the costs of Indigenous crime in monetary perspective, the Access Economics study (mentioned previously in relation to Health expenditure) projected savings to the economy from a reduction of Indigenous incarceration to be $870.3 million by 2029 (Access Economics, 2008).

Box 2.4

INDIGENOUS CRIME STATISTICS

- Indigenous Australians make up 2.2 per cent of the total population of Australia and 24 per cent of the prison population.
- In the Northern Territory Indigenous people make up 84 per cent of the prison population.
- Indigenous people are 13 times more likely to be imprisoned than non-Indigenous people.
- 57 per cent of first time prisoners and 67 per cent of prisoners with prior imprisonment were unemployed at the time of arrest.

Source: Gilbert et al (2009), Australian Bureau of Statistics (2002)

One of the key strengths of the Working on Country program is the focus on cultural heritage and the grant system, which requires Indigenous initiative in order to acquire funding. These two aspects facilitate improvement in levels of social capital, which has shown to be strongly linked to rates of criminal activity (Hunter 2000). This paper demonstrated the link between unemployment, social exclusion, and crime rates, and also shows that there can be spill over effects from social exclusion into households and the wider community.

The reduction in unemployment derived from the Working on Country program will also serve to reduce antisocial behaviour in the form of high rates of arrest, police harassment and alcoholism. Hunter (2000) notes that non-CDEP participants, particularly those long-term unemployed had a far worse measure of related social indicators, not to mention high rates of social exclusion and low levels of social capital and civic engagement. It is worth mentioning that the stated willingness of Indigenous Australians to participate in work is actually higher than that of non Indigenous Australians (Hunter and Gray (1999), in Hunter (2000)), and the Working on Country program, by providing both employment and facilitating social capital gains will have an additional function by improving socioeconomic outcomes.

If these social capital gains can be realised, this could also have a reinforced effect on employment through reductions in crime. Hunter and Borland (2000) found that the direction of causality appears to run from arrest to employment, and that the high rates of Indigenous arrest account for approximately one-sixth of the differential in mainstream employment between Indigenous and other Australians (p 195 in Hunter 2000). Programs such as Working on Country which have in-built mechanisms for fostering social capital have the potential to increase labour force participation outside of the program itself.

Therefore, there are a number of factors, which, in combination, have the potential to generate significant benefits for the Indigenous Community. Through the research of Boyd Hunter (Centre for Aboriginal Economic Policy Research) in particular, there is good evidence that there is a strong desire within the Indigenous Community to improve their socioeconomic situation and reduce anti-social behaviours. Strengthening social capital through programs like Working on Country may be able to generate a virtuous cycle in this regard.

Limitations

Limitations to measuring the socioeconomic benefits of programs such as the Working on Country program are primarily based on the fact that market values for some benefits of the program such as empowerment, wellbeing or quality of life, are very difficult to identify due to the subjective nature of the goods. The concept of social capital is again difficult to define, however empirical observations (which have tried to quantify levels of social capital through observable indicators such as civic engagement, or participation in community activities) show robust results in terms of predicting traditional social indicators. These limitations include:

- the difficultly associated with placing a monetary valuation on concepts such as social capital, wellbeing, quality of life, cultural attachment;
- difficulty in quantifying causal factors behind flow on benefits such as increased health or decreased crime rates;
- a question as to whether the framework for measurement of success is in line with Indigenous self-perception; and
- difficulties in accounting for endogeneity bias when quantifying flow on benefits from Indigenous Employment programs.

The limitations of techniques to evaluate social impacts are discussed in more detail in Box 2.5.

Box 2.5

LIMITATIONS WHEN EVALUATING SOCIAL IMPACTS

Conventional measures of the socioeconomic impacts of Indigenous employment programs have been criticised from a number of standpoints.

- Altman (2009) suggests that current indicators of Indigenous outcomes may not be appropriate in terms of the self-perception of Indigenous wellbeing. Altman also suggests that the social indicators ignore aspects of the "hybrid economy", whereby some forms of economic activity such as hunting, subsistence living, or participating in cultural activities, would not be considered in conventional evaluations.
- The Culturalist/relativist critique argues that the current framework uses only the social norms of the dominant society, which overlooks some Indigenous social values.
- Hunter (2007) argues that the inherent difficulty in measuring health outcomes from programs which focus on employment creation is what is known as reverse causation or endogeneity bias, whereby the chain of cause and effect is difficult to establish. Are healthy individuals the ones who are able to participate in the labour market, or does labour market participation have a positive effect on the health of the participants? It would appear far more intuitive to show that healthy individuals will be able to work, and that outcomes for employed individuals would therefore produce healthier results.
- Booth and Carroll (2005) also highlight the issue of endogeneity problems in their assessment of the gap in health outcomes between Indigenous and non-Indigenous Australians. They did however manage to show that socioeconomic variables explain between one third and one half of the gap and on this basis made the recommendation that policies directed at improving socioeconomic status of Aboriginal people will also result in improved health outcomes. When controlling for socioeconomic status, a significant gap remained, part of which may have been attributable to differences in the delivery of health services. They make the recommendation that panel data be used in order to establish the direction of causality in order to more rigorously investigate the discrepancy in life expectancies. This empirical difficulty almost certainly leads to an underestimation of flow on impacts of employment on health – even more so when taking into account data limitations in many Indigenous communities.

Source: Altman (2009), Booth and Carroll (2005) and Hunter (2007)

2.3 Valuing environmental impacts

In undertaking economic evaluations, the full economic cost of activities, including their social impact is important. This is known as environmental economics (see Box 2.6). The consideration of the environment in economic valuations acknowledges that the environment has an economic value, regardless of the fact that it may or may not have a market value or price attached to its use. A lack of market value for certain activities can be part of a market failure, where markets do not fully consider the social costs or benefits of an activity.

Discussed below are some of the more common methods of valuing environmental goods and their associated difficulties. Conducting environmental valuations for the projects currently underway as part of the Working on Country program is beyond the scope of this evaluation, however, there have fortunately already been a number of non-market studies directly on, or easily transferable to, Working on Country projects. (A summary of these projects can be found in section 4.4 Environmental Valuation). These valuations are clear examples of benefits accruing to the program, which are additional to those of the multiplier analysis

Box 2.6

ENVIRONMENTAL ECONOMICS

Environmental economics acknowledges the value of both the environment and economic activity and makes choices based on those values. The goal is to balance the economic activity and the environmental impacts by taking into account all the costs and benefits.

The assumption in environmental economics is that the environment provides resources, assimilates waste and provides aesthetic pleasure to humans. These are economic functions because they have positive economic value and can be bought and sold in the market place.

Source: Wierenga M. 2003, A brief introduction to environmental economics, ELAW August 2003

Valuation methods

Environmental economists have developed a number of techniques to value the environment. These include methods outlined below. Limitations about economic valuations are outlined in Box 2.7.

- *Market Price Method* — Estimates economic values for ecosystem products or services that are bought and sold in commercial markets. For example, a cultural site could be valued based on the entrance fees collected.
- *Hedonic Pricing Method* — Estimates economic values for ecosystem or environmental services that directly affect market prices of some other good. Most commonly applied to variations in housing prices that reflect the value of local environmental attributes.
- *Travel Cost Method* — Estimates economic values associated with ecosystems or sites that are used for recreation. Assumes that the value of a site is reflected in how much people are willing to pay to travel to visit the site. For example, adding up the costs people would expend to travel and recreate at a particular area.
- *Contingent Valuation Method* — Estimates economic values for virtually any ecosystem or environmental service. The most widely used method for estimating non-use, or "passive use" values. It asks people to directly state their willingness to pay for specific environmental services, based on a hypothetical scenario. For example, people would state how much they would pay to protect a particular area.
- *Contingent Choice Method* — Estimates economic values for virtually any ecosystem or environmental service. Based on asking people to make trade offs among sets of ecosystem or environmental services or characteristics. Willingness to pay is inferred from trade offs that include cost as an attribute. For example, a person would state their preference between various locations for siting a landfill.

- *Benefit Transfer Method* — Estimates economic values by transferring existing benefit estimates from studies already completed for another location or issue. For example, an estimate of the benefit obtained by tourists viewing wildlife in one park might be used to estimate the benefit obtained from viewing wildlife in a different park.

Limitations

In order to take into consideration the environmental costs and benefits of an activity, it is necessary to establish a mechanism to value (or price) environmental impacts. There are a variety of valuation techniques that can be used to do this, however, due to the nature of the costs and benefits, there are distinct limitations and challenges in doing so.

As mentioned the primary difficulty associated with valuing environmental costs and benefits rests with the lack of a market value. Establishing a value for what is being measured often presents a significant difficulty.

Further difficulties include[2]:

- benefits are more likely to lack a market value, yet costs are known;
- benefits are often collected over time while costs are upfront; and
- it can be difficult to understand what is being measured.

Box 2.7 further discusses the limitations associated with valuing environmental impacts.

[2] Wierenga M. 2003, A brief introduction to environmental economics, ELAW August 2003

Box 2.7

LIMITATIONS – ENVIRONMENTAL EVALUATION

The limitations of economic values must be fully appreciated when using the resulting dollar figures. Ethical and technical limitations are especially important in environmental management.

Ethical issues

It is not always feasible or desirable to convert all environmental benefits and costs into dollar values. Some benefits and costs may be difficult to identify because of a lack of knowledge about ecosystems. Driver and Burch (1988) argue that information could be lost in the process of translating the diverse benefits of a resource into a single monetary value. Other people argue that the benefit to society of environmental resources is too complex to be captured by a single dollar value and to attempt to do so is to trivialise the importance of the environment (Cameron 1992, p.159). Other benefits and costs may be controversial, such as the value of life, and tend not to be measured in dollars.

The main moral limitations to economic valuation of the environment are as follows:

- Certain conventions about equity and morality are assumed in an economic analysis. For example, most economic studies assume that the values given to a resource should be limited by people's ability to pay for them, and that the current distribution of wealth is acceptable. Some people's economic votes therefore have a higher value than others because a rich person is more likely to be willing to pay more to protect (or degrade) an environment than a poor person. In consequence, some individuals' preferences count a great deal and others' hardly count at all.
- Any valuation implies that natural resource attributes are of relative and not absolute importance – a judgement that is not shared by all. Furthermore, for some people no amount of money can compensate for damage to environmental resources.
- Whose values should be assessed? Do we take into account only human values, only the values of Australians or only the values of current generations? Even a perfect valuation of the preferences of existing consumers cannot provide any indication of the preferences of people in the future.
- Individual economic preferences are not necessarily preferences that are moral or proper from society's perspective. In an economic framework, ethics is reduced to the efficient satisfaction of human demands.

Monetary valuation is generally part of an assessment undertaken in a cost-benefit framework. Cost-benefit analysis focuses on efficiency in a narrow economic way and does not address issues of social equity or other social concerns.

Technical issues

Despite advances in the sciences and economics, there remain a number of unresolved technical problems with monetary valuation:

Monetary information is usually required on complex and poorly understood effects, such as the full value of ecological services.

The comparability of dollar values for different goods is limited by distortions in markets because of various forms of government intervention. For example, tariffs on parts for imported tractors and on the tractors themselves cause their market price to diverge from their true scarcity value. As a consequence, the monetary value of the repair and use of tractors cannot easily be compared with other costs of agricultural production.

Like most quantitative information, dollar values provide no more than an estimate for a single point in time. Shifts in social attitudes, improved information, and a declining resource base can all lead to large changes in valuations.

Source: Australian Government 2011, Techniques to Value Environmental Resources: An introductory handbook, <http://www.environment.gov.au/about/publications/economics/value/chapter2.html> Accessed 10 May 2011

Chapter 3

The outputs of the Working on Country program

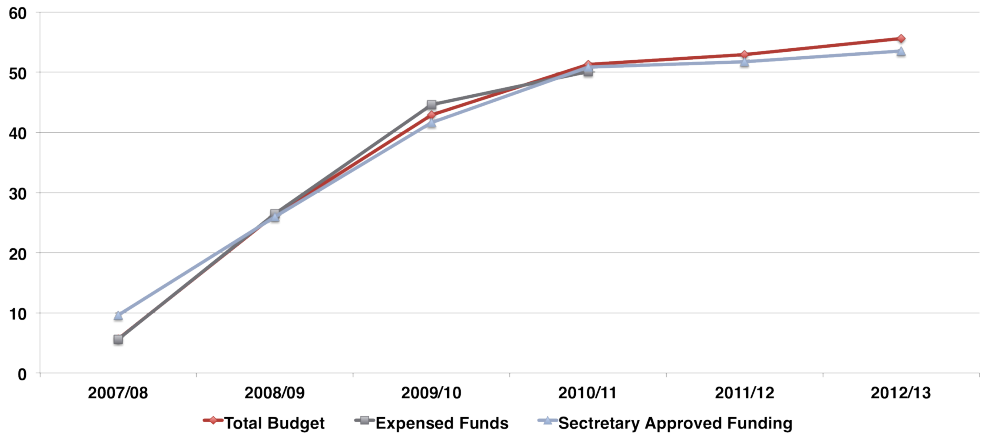
This chapter provides an overview of the outputs of the Working on Country program by looking at the expenditure on the program, the wages it provides and the direct employment attributable to the program. The analysis in this chapter draws heavily on data provided by the Department in relation to these issues.

3.1 Working on Country expenditure

In total around $243.1 million of funding has been budgeted for under the Working on Country program. Spending on the Working on Country program increased markedly over the first 3 years since its inception in 2007/08 and is projected to remain relatively stable through to 2013 – although at present no further funding rounds have been scheduled. In 2010/11 just over $50 million of funding has been budgeted. The growth in spending seen over the 2007 to 2010 period reflects start up costs in the early years of the program. Figure 3.1 shows the rollout of spending over the course of the Working on Country program.

Figure 3.1

ROLLOUT OF SPENDING ON THE WORKING ON COUNTRY PROGRAM ($ MILLION)



Source: DSEWPaC (2011)

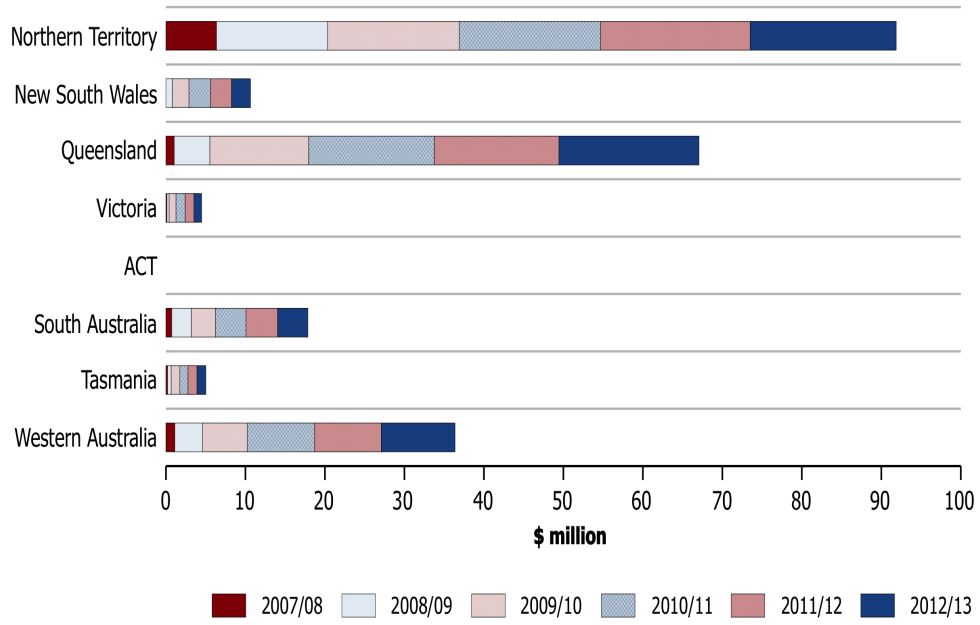
Spending in the early stages of the project did not match committed funds, but that this gap had dissipated by 2009/10. Spending is now on track to meet committed funds. The large increases in spending reflect how the project has been scaled up since 2007/08.

A more detailed breakdown of approved expenditure by State and Territory is illustrated in Figure 3.2. As seen, the Northern Territory and Queensland dominate spending. Western Australia also has some large-scale projects underway. There are currently no projects underway in the Australian Capital Territory. The large portions of spending allocated to Western Australia, Queensland and the Northern Territory reflect both the larger populations and land holdings of Indigenous people in these jurisdictions as well as two significant projects: the Northern Land Council project in Northern Territory and the Kimberly Land Council project in Western Australia.

The sizeable investment in the Northern Territory is partly attributable to the Working On Country investment that originated from the 2007 *NT Emergency Response – CDEP conversions*. The conversion of CDEP positions did not involve a direct transition from CDEP to Working on Country. Rather, ranger positions were determined through the Working on Country competitive grants process, which considered environmental values and community capacity to deliver projects.

Figure 3.2

APPROVED WORKING ON COUNTRY EXPENDITURE BY STATE (AUD MILLIONS)

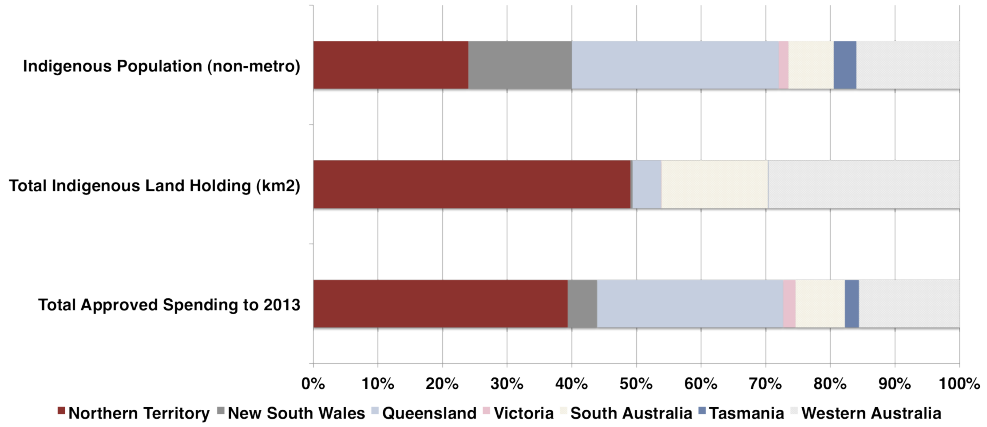


Source: DSEWPaC (2011)

As seen in Figure 3.3, the proportion of spent funds by state is fairly consistent with the distribution of Indigenous land holdings in Australia. Notably however, a disproportionately large amount is spent in Queensland. This is very likely due to the remoteness of projects in Northern Queensland, including the Torres Strait Islands and the associated logistical costs of providing project support.

Figure 3.3

SPENDING BY STATE AND DISTRIBUTION OF INDIGENOUS POPULATION



Source: DSEWPaC, 2011

Another interesting metric is to compare spending by state to the proportion of Australia's Indigenous population that live outside of metropolitan areas[3] within that state. The top and bottom lines in Figure 3.3 demonstrate that funding matches very closely to this metric. The figure demonstrates that when this metric is used, Queensland funding looks more appropriate. Using a combination of the two metrics demonstrates that funding is generally appropriate.

3.2 Wages

The full time equivalents of the daily wages paid under the Working on Country program highlight significant improvements on the median gross income for Indigenous people of $278 per week, bringing Working on Country participants above the median gross income of $473 for all non-Indigenous Australians, and well above minimum wage (ABS, 2010). Figures mentioned reflect results of the 2006 Census.

The amount of spending per worker provides an interesting insight into current operational efficiency in the various states and the Northern Territory. However the lower spending in the Northern Territory may be partly attributable to budgetary limitations for a Northern Territory-specific element of the program. Further, additional spending in Queensland would in part reflect additional costs of undertaking land and sea management works across the Torres Strait Islands. Table 3.1 shows the relationship of budget spent to number of workers as reported by the DSEWPaC wage report analysis for 2009/10. In cases where new projects are being developed (hence incurring start-up costs), or where the number of projects might require more resources for logistical reasons, the costs are quite high, for example in Queensland where 13 projects are underway, 5 of which are remote projects (DSEWPaC 2011). When budgetary limitations and remote logistics are accounted for, this figure could be used as a rough approximation of program efficiency.

[3] Based on ABS data – includes all indigenous in outer regional, remote and very remote Australia.

Table 3.1

NUMBER OF WORKERS VERSUS TOTAL SPENDING BY STATE 2009-10

State	Total Funds Spent (Thousands of $)	Average Number of Workers (FTE)[4]	Total Spent per Worker (Thousands of $)
Northern Territory	14,395	226	63
New South Wales	2,245	31	73
Queensland	12,648	89	141
Victoria	824	9	97
South Australia	3,282	38	85
Tasmania	1,056	12	88
Western Australia	6,765	58	116
Budget Funding	41,220	463	89

Source: DSEWPaC (2011)

3.3 Employment

The data set provided by the DSEWPAC contains information about the workers involved in the scheme for the 2009-10 financial year. While not fully up to date, this data provides some useful information, particularly regarding the rollover from CDEP recipients to Working on Country program participants, the nature of employment and the demographics of those employed. This data illustrates that the program is much more developed in terms of its scale in the Northern Territory and Queensland, with Tasmania and Victoria only operating on very small scales. The information is summarised by State in Table 3.2 below.

Table 3.2

BROAD CHARACTERISTICS OF WORKING ON COUNTRY PARTICIPANTS 2009-10

State	Number of Indigenous workers						Casual
	Total	Male	Female	Former CDEP	Full-time	Part-time	
VIC	13	12	1	1	10	3	-
NSW	46	32	14	14	24	22	-
QLD	144	113	31	17	134	5	5
NT	396	270	126	100	169	96	131
SA	79	56	23	24	29	30	20
WA	86	69	17	51	50	10	26
TAS	17	14	3	1	14	3	
National	781	566	215	208	430	169	182

Source: DSEWPaC (2011)

[4] Table 3.2 counts all workers on the program, regardless of the number of hours worked. Table 3.1 *averages* the number of hours worked on the program and calculates the equivalent number of FTE's that would be employed in this many hours. As such, the staff numbers in these tables differ.

CDEP conversion to Working on Country

The employment of many CDEP participants in Working on Country is important for determining the amount of new employment generated by the scheme; where Working on Country has replaced another program there is no job creation.

As can be seen from the data, the number of workers that have converted from CDEP to Working on Country is conservatively estimated to be 208 of 781 Indigenous workers, or approximately 27% of workers. Not all of these workers moved directly into Working on Country from the CDEP, and there was also a competitive grants process for Working on Country funding (See A.5). Unfortunately from these statistics it is not possible to tell which of these workers were previously employed full time or part time under the CDEP (in measuring the impact of the Working on Country program this would constitute new employment).

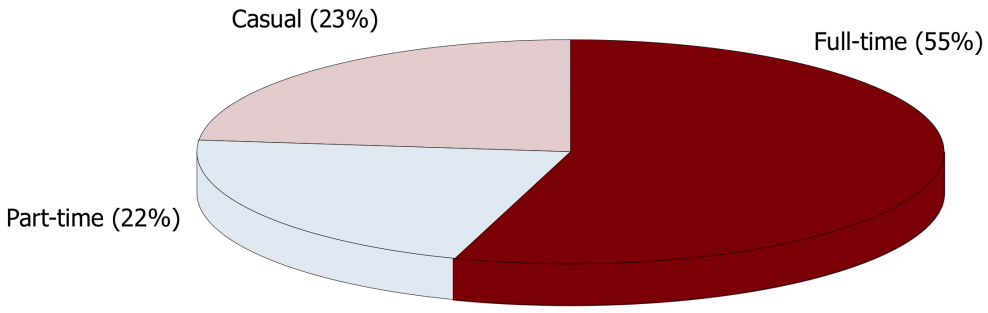
The percentage of CDEP employed Indigenous workers in the general community in 2002 was 34% (2002 NATSIS), which indicates that former CDEP participants are not over-represented in the Working on Country program. This is an important indicator in terms of distinguishing the Working on Country program. It is not possible to tell whether workers were previously employed in the private sector, although for the purposes of this study it would seem reasonable to assume that only small numbers would have been employed in the private sector, as Working on Country employment is unlikely to offer higher wages than private sector employment.

Nature of employment and employment demographics

The majority of those employed in the Working on Country program are employed in full-time positions (55 per cent). This is significant as full-time positions tend to have higher levels of job security and can involve enhanced career development. However, this should not take away from the benefits of part-time and casual employment, which provide flexibility to those employed. The mixed nature of employment in the Working on Country program, shown in Figure 3.4 is therefore highly important in meeting the specific needs of individuals.

Figure 3.4

WORKING ON COUNTRY EMPLOYMENT, NATURE OF EMPLOYMENT, NATIONAL



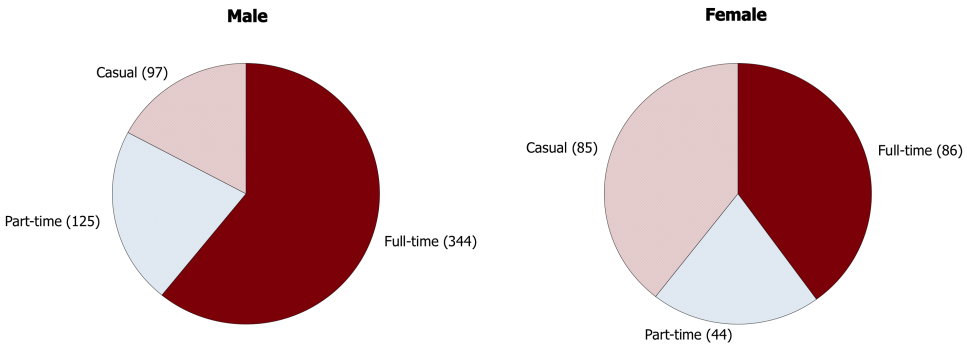
Source: DSEWPaC (2011)

Working on Country program positions are primarily taken up by males (72 per cent). However, a significant proportion of the employed are females (28 per cent).

The majority of employment for both males and females is full-time work, as illustrated in Figure 3.5. However, a higher percentage of male employees in the program are employed full-time, while just over double the percentage of females are employed in casual work than males. Notably, a similar percentage of males and females are employed part-time.

Figure 3.5

EMPLOYMENT TYPE, MALE/FEMALE SPLIT, NATIONAL



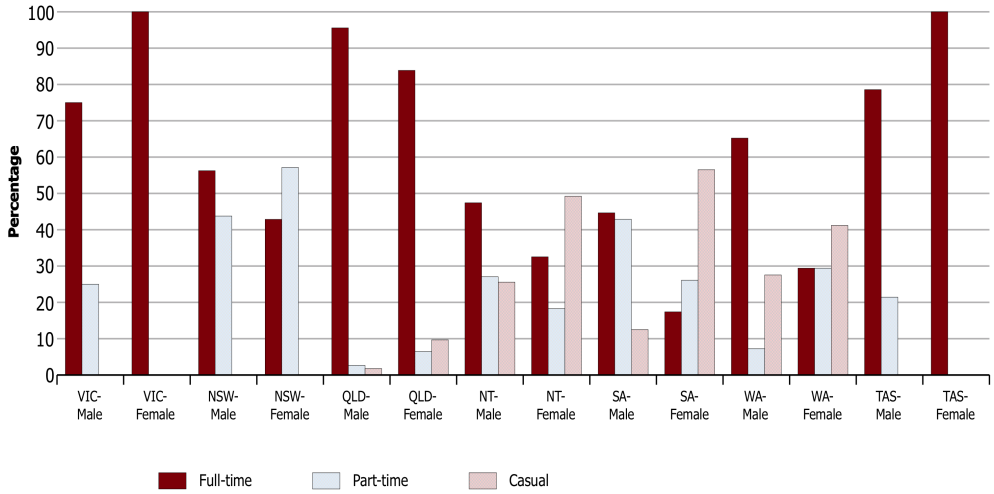
Source: DSEWPaC (2011)

When examining the nature of employment and the split of employment by jurisdiction, the main employment type for both males and females across all the participating States and Territories except for New South Wales and the Northern Territory is full-time employment, as seen in Figure 3.6. Part-time employment is also undertaken in the majority of jurisdictions for both male and female workers.

However, the level of casual and part-time positions in the various jurisdictions varies considerably. Notably, funding recipients in Victoria, New South Wales and Tasmania did not employ workers on a casual basis in 2009-10. However, the proportion of casual workers in other jurisdictions, particularly the Northern Territory, South Australia and Western Australia is substantial.

Figure 3.6

EMPLOYMENT TYPE, MALE/FEMALE SPLIT, STATE AND TERRITORY



Source: DSEWPaC (2011)

In summary, there are several positive aspects to the program, which should be highlighted. Program efficiency is high, with program spending per worker within reasonable limits especially considering that the program is still in the initial phases and there are significant logistical difficulties. Further, despite the fact that around a third of program participants also took part in the CDEP, for two thirds of rangers the Working on Country program represents new employment.

Chapter 4

Multiplier analysis

The impacts of the Working on Country program largely are related to the employment outcomes associated with it.

4.1 Employment outcomes

The employment outcomes of the Working on Country program are assessed in this study using a multiplier analysis. A starting point for the analysis is to determine the direct jobs created by the working on country program.

This is not a trivial task. Direct employment outcomes, for the purpose of a multiplier analysis need to be **additional** jobs, that is they need to represent a change in the level of employment from before the program. This is a problem in conducting multiplier analysis in many areas, and results in the criticism of this type of analysis. For example when using a multiplier analysis to determine the value of a new business development in a city with minimal unemployment, it is likely that the jobs `created' are actually individuals that are already employed, and the additional jobs are likely to be only a small fraction of the total employment in this new development.

This risk is not so excessive in the case of Working on Country. Working on Country's raison d'être is the existence of large pools of unemployed Indigenous Australians in remote and regional Australia. As an example, the 2006 Census shows that Indigenous non-participation in the workforce of 43 per cent across Australia in 2006 is significantly lower than the non-Indigenous level of 24 per cent. Further, in remote areas this number rises to more than 50 per cent. Accordingly, it is assumed in this case that by and large employment in Working on Country is additional to the existing jobs.

In only one aspect is this assumption undermined. As discussed in Chapter 3, there is a proportion of employment in the Working on Country program that is not additional, and that is those employees that rolled over from the CDEP.

Note that as the analysis uses income multipliers (discussed below) there is no need to think about additional jobs, rather additional income. This means that issues like the split between full time and part time labour are not relevant to this study.

The analysis has found that $14.7 million of gross labour income is generated by the program, The final key input to determine how much of the income is actually additional, is to reduce the income by existing income.

The wages of participants in the program were used as an input into a reduced welfare payments calculation. Assuming that the additional employment is driven from a large pool of unemployed labour, means that the income must be net of the benefits that this labour would have already received. This leaves annual additional labour income of around $8 million, as seen in Table 4.1. This amount is the net increased income from the program taking account of the impacts of the program in terms of reductions in other spending.

Table 4.1

WORKING ON COUNTRY - ADDITIONAL INCOME 2009/10

	Income ($m)
Gross wage Income	14.7
CDEP rollover	-2.7
Reduced welfare	-4.0
Additional Income	= 8.0

Source: ACG analysis, 2011

The multiplier method

Having established a baseline for the additional income received due to Working on Country, the next stage is to determine what impact that this income has on the region and the broader economy.

To do this, an input-output multiplier is needed.

The Australian Bureau of Statistics (ABS) produced input-output multipliers for use in studies like this, however this ceased in 1999. To undertake this study, more up-to-date multipliers than this are required, and these were calculated using the ABS input-output tables from 2006-07.

Essentially, a multiplier uses ABS input-output data to determine what the total impact of the expansion of an industry is on the wider economy. The simplest multipliers capture a range of effects that come from the expansion of the output of a local industry. These include:

- **First Round effects:** As a program expands, it purchases a range of inputs to fund its activities. In this case, Working on Country purchases a range of capital goods such as motor vehicles, and equipment such as protective clothing.
- **Industrial Support:** Other industries must expand, following the above example, the motor vehicle industry will purchase more inputs such as steel.
- **Consumption induced effects:** Workers in the Working on Country program will receive more income. This will be spent on other goods and services requiring industries to expand.

These effects in summation give an output multiplier. In this case, a simple output multiplier was not deemed the most appropriate. As the output of the Working on Country program is difficult to quantify income multipliers have been used in their stead.

Of course, for this project the multiplier effect in the first instance is a national impact. However, disadvantaged communities will experience different (smaller) impacts. Essentially this is a result of the fact that for most disadvantaged communities a large proportion of income is spent on goods that are imported from outside the region. Most of the multiplier effect will accordingly be felt outside the region, however some income will be spent locally – in local service industries.

4.2 Multipliers and results

For the purposes of this study, the Working on Country program has been classified using an input-output framework into a range of industries, as the tasks stretch across a range of tasks including agricultural support, tourism, cultural services and education.

Table 4.1 demonstrates the multipliers for each industry that Working on Country covers, broken into Type I and Type II multipliers. The distinction between these multipliers is important, the simple explanation for the difference in size is that type II multipliers go beyond the production impacts and include the multiplier effect of additional expenditure by the household sector (which is employed to generate the additional production).

In order to determine the sectors in which the flow on benefits can be expected to occur we have grouped spending into three different areas based on work plans supplied by the client. It should be noted that these proportions are assumed based on the scope of works and expected outcomes of two representative projects:

- the Dhimurru rangers (NT) and
- the Bardi Jawi Rangers (WA).

Table 4.2

INCOME MULTIPLIERS

Sector	Type I Multiplier	Type II Multiplier	Percentage of Working on Country covered
Agriculture, Forestry and Fishing Support Services	2.0	3.1	75
Heritage, Creative and Performing Arts	1.8	3.6	20
Education and Training	1.8	7.7	5

Source: Allen Consulting Group, 2011

National Results

Results for both Type I and Type II multipliers will be presented in this section. The national results are the first to be considered. The Type I effects are the direct effects of this income in terms of expansion of production in the community and Type II effects represent the benefits from additional income as discussed in section 2.1.

Table 4.3

NATIONAL RESULTS - ADDITIONAL INCOME FROM THE WORKING ON COUNTRY PROGRAM

Direct Additional Income ($m)	Type I Additional Income ($m)	Type II Additional Income ($m)
8	14.8	27.4

Source: Allen Consulting Group, 2011

The national results in Table 4.3 indicate that there is a significant increase in income attributable to labour that arises from the Working on Country program. In the Type I case income rises in aggregate terms by $14.8 million throughout the economy. In the Type II case, the aggregate impact is $27.4 million.

State and Territory Results

The state benefits are a more complex matter. To determine these impacts, effectively the multipliers benefit is to be pro-rated across states. To do this, we need to consider the impacts of where the increased income generated by the Working on Country program spurs production. There are three key issues that are involved in this analysis.

- A proportion of the income in the first round will be spent *locally*. Although the areas concerned for the Working on Country programs do not have a large industrial base, there are some multiplier benefits that arise from spending on local industry – particularly service industries like retail.
- There are pronounced *state effects*. Whilst production of goods is concentrated in the larger economies of New South Wales and Victoria, there are home state biases in expenditure – regional areas tend to import from closer to home where possible.
- There are *national production effects*. The industrial base is not spread uniformly. So although New South Wales and Victoria have a limited involvement in the Working on Country program, these states still see a disproportionally large share of the overall benefit.

Table 4.4 show the benefits of the Working on Country program by State and Territory, and further classifies these benefits into Type I or Type II effects. Intuitively, direct benefits and Type I effects could be expected to be strongly linked to the geographic region where the program is located, whereas Type II effects are concentrated in the larger centres of industrial production.

Table 4.4

AGGREGATE BENEFITS BY STATE AND TERRITORY 2009-10

State	Direct Benefit ($'000s)	% share of Direct benefit	Type I Benefit (includes direct) ($ '000s)	% share of Type I aggregate	Type II Benefit (includes direct) ($ '000s)	% share of Type II aggregate
New South Wales	560	7	2,180	15	4,990	18
Australian Capital Territory	0	0	90	1	250	1
Victoria	120	2	1,210	8	3,040	11
Queensland	1,520	19	2,740	19	5,010	18
South Australia	740	9	1,260	9	2,250	8
Northern Territory	3910	49	5,210	35	7,970	29
Western Australia	850	11	1,610	11	3,020	11
Tasmania	290	4	460	3	790	3
Total	8,800	100	12,900	100	22,600	100

Source: Allen Consulting Group, 2011

The state and territory table reveals some interesting results. In terms of direct benefits, as discussed in Chapter 2, the lions share of direct benefits go to the Northern Territory and Queensland. New South Wales and Victoria receive only 7 and 1.5 per cent of the direct benefits respectively. Where the multipliers are taken into account, even with the local and regional biases present, only New South Wales and Victoria realise a significant growth in the share of the benefit taking in a combined 30 per cent of the benefits when a Type II multiplier is used.

Local Impacts

The remote impacts presented are for the whole Working on Country program. Effectively, these consider the additional income that is generated within the small communities that deliver services through this program as a group. Input-Output multiplier analysis at the level of an individual remote centre is fraught. However, a database that looks at expenditure patterns at an average remote centre, and then creates an effective regional multiplier can be used with more confidence.

The total benefits accruing to the remote areas is given in Table 4.5, with remote centres receiving $12.9 million of Type I benefits and $16.5 million of Type II benefits.

These additional benefits are significantly smaller than the national benefits, as there are significant benefit 'leakages' from these remote areas to the rest of the country. These arise as much of the production required to meet local income increases comes from outside the remote areas studied. The key beneficiaries in these areas are services that must be supplied locally. As such, retail, hospitality and accommodation services grow locally, but goods such as clothing, processed foods and motor vehicles are still produced elsewhere.

Table 4.5

TOTAL BENEFIT TO WORKING ON COUNTRY REMOTE CENTRES

Type I aggregate benefit ($m)	Type II aggregate benefit ($m)
12.9	16.5

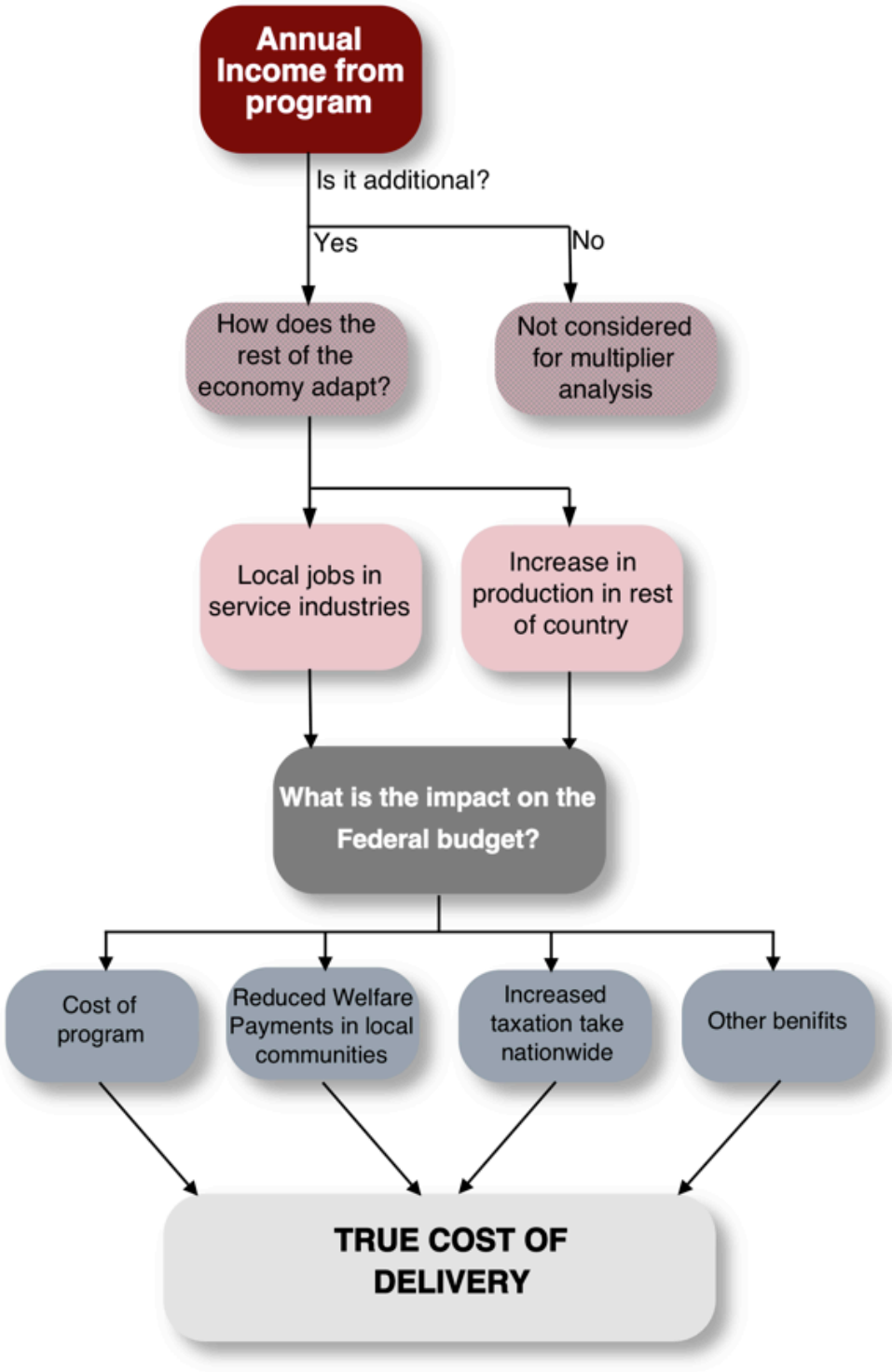
Source: Allen Consulting Group, 2011

4.3 True cost of the Working on Country program

The framework that is used to consider the true cost of the Working on Country program is presented in Figure 4.1. The true cost considers the impacts of the annual cost of the program, increased taxation revenue and reduced welfare payments to achieve a broad economic true cost.

Figure 4.1

TRUE COST OF DELIVERY FRAMEWORK



Source: Allen Consulting Group, 2011

The costs of healthcare and policing were rigorously analysed in the literature, however the impacts of employment are not well established. Whilst these impacts are likely to further reduce the true cost of Working on Country, for the purposes of this study, quantification is problematic.

Two key assumptions are required to undertake this analysis.

- Aside from the individuals employed on Working on Country, additional labour income is considered to not have a welfare benefit.
- Tax calculations are based on industry average wages.

These assumptions feed in to the total program cost calculation, which is shown in Table 4.6. Overall, the Type I true cost of the program has been estimated to be $34 million, and the Type II true cost $32 million. Given an actual cost of the program of at least $41.2 million, there is evidence that the true cost of the program is **at least 17 to 23 per cent** lower than the book cost.

Table 4.6

TRUE COST OF DELIVERY – 2009/2010

	Type I value ($m)	Type II multiplier ($m)
Cost of program	41.2	41.2
– reduction in welfare payments	-4.0	-4.0
– increased tax take	-2.9	-5.1
– reduced health expenditure	*	*
– reduced law and order expenditure	*	*
= true cost of program	34.3	32.1

Source: Allen Consulting Group, 2011

4.4 Environmental Valuation

Valuation of environmental benefits from the Working on Country program is an important part of understanding the true costs and benefits of the program. The true cost of the program, discussed above presents the cost of the program to the taxpayer. Leaving the analysis there assumes that the outputs of the Working on Country program provide no value. This is incorrect, though valuing the environmental and other outcomes of the project is difficult.

Environmental management undertaken by Indigenous rangers in the Working on Country program includes a number of activities that can be quantified. The difficulty, as with much valuation of environmental services is in assigning and tracking benefits. Three projects that demonstrate the difficulties with performing an economic impact analysis of these projects will be considered.

- The Kimberley Rangers, WA;

- The Mid-North Coast Aboriginal Rangers in Taree, New South Wales; and
- The Anindilyakwa Rangers, NT.

The Kimberley Land Council's Working on Country project in the Kimberley Region of Western Australia provides environmental services that cover almost 137,000 square kilometres of land, including more than 1,800 kilometres of coastline. Rangers in the project undertake a variety of activities as outlined in Box 4.1.

Box 4.1

KIMBERLEY RANGERS ACTIVITIES

The Kimberley Rangers undertake a wide range of activities including:

- weed management to protect threatened ecological communities;
- land rehabilitation including seed collection and sowing native plants in degraded areas;
- fire management;
- monitoring and managing turtle and dugong numbers and habitats;
- monitoring seagrass beds;
- cleaning marine debris from beaches;
- monitoring river water quality;
- controlling feral pigs, cats, horses and cattle;
- monitoring threatened species;
- managing remnant rainforest;
- recording visitor data;
- protecting important cultural sites; and
- monitoring significant marine and reef sites.

Source: Australian Government 2011, Working on Country funded projects — Western Australia, < http://www.environment.gov.au/Indigenous/workingoncountry/projects/wa/index.html#twoa>, Accessed 20 June 2011

A number of activities undertaken by the rangers cannot be valued but have considerable benefits. Fire, weed and feral animal management all have value. The benefits of fire management are concentrated on reducing harm caused by wildfires. Fire management reduces damage to natural resources, wildlife and public property from wildfire. Additionally, fire management protects and sustains plants and animals that depend on fire.

Weed and feral animal management have two primary advantages. Firstly, they protect native ecosystems in the areas where weed and feral animal management is being undertaken. Weeds can compete with native plants space, nutrients water and light and their existence can have a detrimental impact on other flora. Feral animals also compete with native animals for food and shelter, can prey on native animals and can cause damage to ecosystems such as erosion.

The other advantage of weed and feral animal management is the reduction of externalities associated with weed and feral animal existence. The existence of weeds and feral animals in one area can have negative impacts on surrounding areas due to their invasive nature and ability to reproduce or spread quickly. For example, neighbouring properties, that are engaged in commercial activities can benefit as a result of the positive externality that these environmental activities bring. Reducing weeds and feral animals in one property can have spill-over effects to nearby properties, reducing the need for management programs and maintaining productivity.

The Mid-North Coast Aboriginal Rangers undertake a range of important activities, and these are summarised in Box 4.2.

Box 4.2

THE MID-NORTH COAST ABORIGINAL RANGERS

The Mid-North Coast Aboriginal Rangers in New South Wales focus on natural resource management and cultural resource management activities including:

- cultural assessments
- threatened species management
- weed management
- bush regeneration
- visitor site management
- biodiversity survey
- Indigenous knowledge transfer and;
- aquatic ecosystem improvement.

Source: Australian Government 2011, Working on Country funded projects — Western Australia, < http://www.environment.gov.au/Indigenous/workingoncountry/projects/wa/index.html#twoa>, Accessed 20 June 2011

The Mid-North Coast supports significant oyster, fishing, tourism and recreation industries. The environmental benefits of the Mid-North coast aboriginal rangers project relate to the protection of the environment, which is vital for these industries.

While the value of these industries can be calculated relatively easily, the contribution of the Working on Country program to the environment and then the impact of the environment on these industries is more difficult to quantify.

Finally, Box 4.3 describes the activities of the Anindilyakwa rangers.

Box 4.3

THE ANINDILYAKWA RANGERS

The Anindilyakwa Rangers undertake land and sea management activities on Groote Eylandt in the NT. Work includes:

- threatened species monitoring (e.g. northern hopping mouse; northern quoll and turtle species); controlling feral cats;
- protecting turtle nesting areas;
- monitoring and managing weeds; and
- monitoring and collecting marine debris.

Source: Australian Government 2011, Working on Country funded projects — Western Australia, < http://www.environment.gov.au/Indigenous/workingoncountry/projects/wa/index.html#twoa>, Accessed 20 June 2011

One of the main benefits of protecting endangered species, as described in Box 4.3 is maintaining biodiversity. By ensuring the continued existence of certain species this can often have a positive impact on a variety of other species who rely on the endangered species for survival, for example as a source of food.

Other benefits of biodiversity relate to (Endangered Species International, 2011):

- air purification;
- health purification;
- water purification;
- agriculture, including pollination of crops;
- carbon sequestration; and
- soil fertility.

Difficulty in valuation

While these are all known benefits of the Working on Country program without additional data these benefits cannot be valued. This is such, since the impact of fires, weeds and feral animals in the absence of their management is difficulty to quantify. In any given year a range of factors will impact on the likely occurrence and impact of these problems.

Additionally, these problems are likely to have differing impacts depending on their locality and incidence. This means it is difficult to calculate the incidence of these problems. Further, where these problems impact on things without a market value, such as biodiversity and protection of endangered animals, it is often difficult to value them even if their incidence could be quantified.

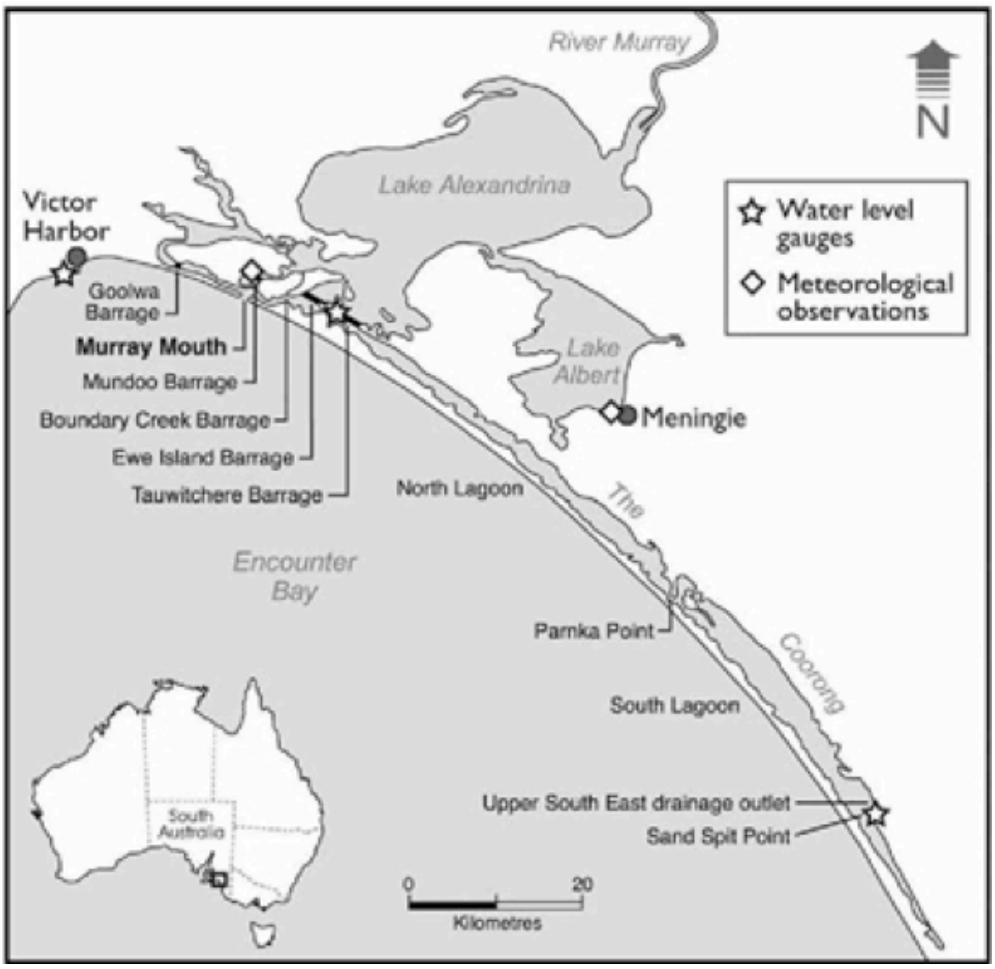
Previous Studies that relate to Working on Country

Several studies have been conducted in the past to value Australian environmental and cultural goods. These studies have used a range of the methods described above, and can be used as a point of comparison in order to quantify the non-monetary benefits of the Working on Country program.

Rolfe and Dyack (2010) use both travel cost and contingent valuation methods to estimate recreation values in the Coorong, Australia. The Coorong is located on the southeast coast of South Australia (see Figure 4.2), and is home to Ramsar Wetlands of International Significance, as well as over 200 species of birds (DEWHA, 2009). The Coorong also draws a significant number of tourists, with the Limestone Coast region drawing over 646,000 domestic visitors in 2001 (Corporate Ascent, 2000).

Figure 4.2

MAP OF THE COORONG, SOUTH AUSTRALIA



Source: Journal of Coastal Research, 2011. http://www.bioone.org/doi/abs/10.2112/JCOASTRES-D-10-00079.1 Accessed 9 June 2011

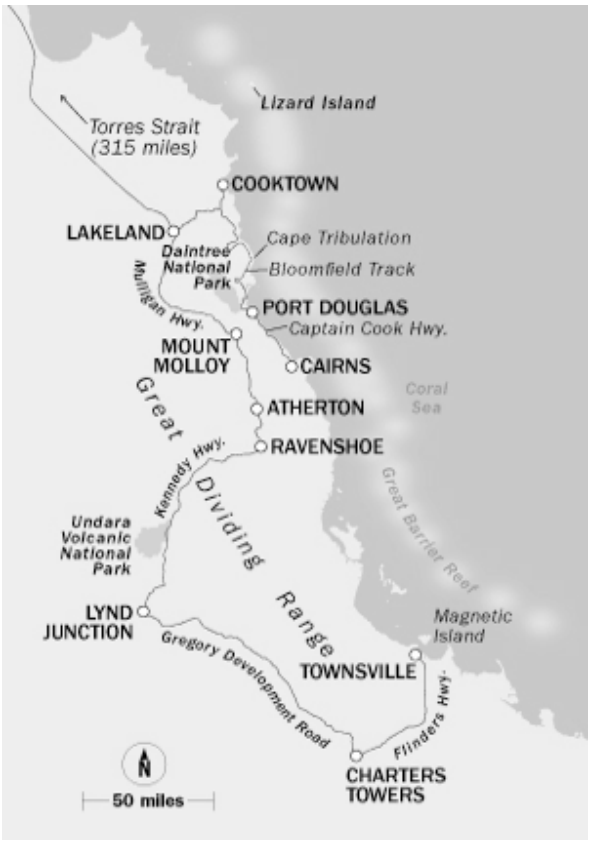
The Rolfe and Dyack study is particularly relevant, as it covers a region specifically covered by the Working on Country program; the Ngarrindjeri Land and Progress Association employs six Indigenous rangers to conduct environmental work in the region (DEHWA, 2009).

The study uses data collected from surveying 890 visitors to the Coorong region over a four-month period beginning in January 2006, with an 88 per cent response rate. Using the travel cost method, Rolfe and Dyack estimate that the average consumer surplus per adult per visit per day is $149. Similarly, using the contingent valuation method, the average consumer surplus per adult per visit per day is given by $116. Given that the Working on Country program helps to protect the Coorong, along with other comparable areas, it can be concluded that society places a positive and economically significant value on the work conducted by the Working on Country program.

In 2004, Greiner and Rolfe used survey data to estimate the consumer surplus gained from access to the Daintree Rainforest and Cape Tribulation, Queensland (see in Figure 4.3).

Figure 4.3

CAPE TRIBULATION AND THE DAINTREE RAINFOREST



Source: National Geographic Society (2007)

The Daintree Rainforest and Cape Tribulation areas draw over 400,000 tourists per year (Rainforest CRC, 2000). The rainforest is part of the Wet Tropics of Queensland World Heritage site, and is the oldest tropical wet rainforest in Australia (UNESCO, 1988). The area is home to ancient plant life, as well as a number of rare and endangered species and bird habitats (UNESCO, 1988).

Using contingent valuation methodology, Greiner and Rolfe estimated that consumer surplus per adult traveller per day was between $7.23 and $13.53 on average.

While there are no current Working on Country grants covering the Cape Tribulation area, it has similar features to the Lockhart River Basin in far North Queensland, where 3 Indigenous workers have been employed under a Working on Country contract (DEHWA, 2009).

The Lockhart River Basin is comparable to Cape Tribulation and surrounds in that it contains rare plants and animals, as well as being host to the largest area of lowland rainforest in Australia (DEHWA, 2009). Given the similarities in environmental features, the consumer surplus gained from access to Cape Tribulation may be used as a measure for the consumer surplus gained from access to the Lockhart River Basin. As such it may be said that consumers place a positive and statistically significant value on the environmental preservation work undertaken by the Kawadji-Kanidji rangers and funded by the Working on Country program.

Tourism and the environment

As discussed in section 2.3, environmental goods derive their value from different sources, and there are many different ways to conceptualise such values. One of the simplest ways is to look at the monetary benefits to environmental goods, which are effectively sold as tourist products (the travel cost method provides one means of calculating this benefit). Uluru is the most popular National Park in Australia with nearly 400,000 tourists visiting the park each year. The cultural and historical significance of the place is an important component of its total value next to the aesthetic beauty of the site.

The Kaltukatjara (Dock River) Rangers work in the vicinity of Uluru, and make a significant contribution to the area in terms of weed management, preservation of native plant species by contributing to the Millennium Seed Bank Project, as well as looking after fire management and feral animal control. The area that is managed by the Rangers contains two significant wetlands and several endangered or vulnerable fauna species. Their activities not only contribute to park management, but also ensure the continuation of the Indigenous Community in the area, which is in itself a significant part of the value of the National Park. With detailed information from doing work 'on-the-ground' the impact of the work performed by Indigenous rangers could be quantified using a method such as Hedonic Pricing.

Summary

It can be seen that, in general, society values the environmental resources that are protected, maintained and managed under the Working on Country program. Thus the conservation work undertaken as a direct consequence of Working on Country is considered valuable, although this value is difficult to quantify and varies across projects.

The environmental benefits of Working on Country can be quantified, and preliminary research suggests that these benefits could have significant values. However, to place credible values on these benefits, more data is required. Areas where it is demonstrable that Working on Country programs have clear private benefits – for example where there is overlap with agriculture or tourism – present cases for further study. However, as noted these are *additional benefits* on top of the 17-23 per cent savings due to the multiplier affects discussed in Chapter 4.

Chapter 5

Conclusion

This study has assessed the Working on Country program by examining both its outputs and outcomes, to illustrate its benefits. The study has also considered the true cost of the program. The Working on Country program has a range of benefits in terms of direct outputs, as well as significantly beneficial outcomes.

5.1 True costs of the Working on Country program

The true cost of the program considers the impacts of the annual cost of the program, increased taxation revenue and reduced welfare payments to achieve a broad economic true cost. Overall the Type I true cost has been estimated to be $34 million, and the Type II true cost to be $32 million in 2009-10. Therefore, due to flow on benefits of the program at least 17-23 per cent of the book costs ($41.2 million) are recouped.

This is an important result. One of the key features of the Working on Country program, that is the high unemployment and low labour force participation in the regions that this program covers is what drives this result. Significantly, other programs with similar goals that use currently employed labour will not derive these same true cost offsets.

5.2 Output of the Working on Country program

The output of the Working on Country program relate to spending, wages and employment. In total around $243.1 million of funding has been budgeted under the Working on Country program. Spending on the Working on Country program increased markedly over the first 3 years since its inception in 2007-08 and is projected to remain relatively stable through to 2013. In 2010-11 just over $50 million of funding has been budgeted.

The Northern Territory and Queensland dominate spending. Western Australia also has some large-scale projects underway. The large portions of spending allocated to Western Australia and the Northern Territory reflect both the larger remote populations and the significant land holdings of Indigenous people in these regions.

In relation to wages, the full time equivalents of the daily wages paid under the Working on Country program highlight significant improvements on the median gross income for Indigenous people of an additional $278 per week, bringing Working on Country participants above the median gross income for all non-Indigenous Australians, and well above minimum wage (ABS, 2011).

Nationally, 834 people were employed as a result of the Working on Country program in 2009-10. Of these employees 781 were Indigenous. The employment data shows that the program is much more developed in terms of its scale in the Northern Territory and Queensland, with programs in Tasmania and Victoria only operating on very small scales. Notably, the majority of those employed in the Working on Country program are employed in full-time positions (55 per cent).

A higher percentage of male employees in the program are employed full-time, while just over double the percentage of females are employed in casual work than males. Notably, a similar percentage of males and females are employed part-time.

5.3 Outcomes of the Working on Country program

Multiplier analysis has been used to examine the outcomes of the program. It is noted that direct employment outcomes of a multiplier analysis need to be additional. In this analysis it has been assumed that most of the employment generated (apart from the proportion of employees that rolled over from the CDEP) due to the large pools of unemployed Indigenous Australians in remote and regional Australia.

As the analysis uses income multipliers there is no need to think about additional jobs, or the split between full time and part time labour as only the additional income is required. It is estimated that in total $14.7 million of additional income is generated by the program annually. In determining the how much of the income is actually additional, this has been reduced income that already accrued to these workers. Assuming that the additional employment is driven from a large pool of unemployed labour, means that the income must be net of the benefits that this labour would have already received. This leaves annual additional labour income of around $8 million.

Having established a baseline for the additional income received due to Working on Country, this was used to determine what impact the program has on the region and the broader economy. The results of this multiplier analysis have been considered across three areas:

- *National results* — The National Results indicate that there is a significant increase in income attributable to labour that arises from the Working on Country program. In the Type 1 case income rises in aggregate terms by $14.8 million throughout the economy. In the Type II case, the aggregate impact is $27.4 million.
- *State results* — The majority of direct benefits accrue to the Northern Territory and Queensland. In terms of direct benefits, New South Wales and Victoria receive 7 and 1.5 per cent of the benefits respectively.
  - Where the multipliers are taken into account, even with the local and regional biases present, there is significant growth in the share of the benefit accruing to New South Wales and Victoria, taking in a combined 30 per cent of the benefits when a Type II multiplier is used.
- *Remote Centre Impacts* —The total benefits accruing to the remote areas is given in Table 4.5, with remote centres receiving $12.8 million of Type I benefits and $16.5 million of Type II benefits.
  - These additional benefits are significantly smaller than the national benefits, as there are significant benefit 'leakages' from these remote areas to the rest of the country.
  - These arise as much of the production required to meet local income increases comes from outside the remote areas studied. The key

beneficiaries in these areas are services that must be supplied locally. As such, retail, hospitality and accommodation services grow locally, but goods such as clothing, processed foods and motor vehicles are still produced elsewhere.

Overall, the true cost of the program is significantly lower than the budget cost. This is an important results of the study and is driven in large part by the large pool of unemployed labour in the regions that the program covers and would make the true cost offsets of this policy more substantial than other environmental programs with employment benefits, such as programs that target 'Green Jobs.'

Appendix A

Background to the Study

The Australian Indigenous population has faced significant disadvantage in recent times. Large gaps between non-Indigenous and Indigenous populations exist in Australia. These gaps relate to, among other things, health, employment, education and life expectancy. The Australian Government has recognised these gaps and acknowledged the need to address them. Consequently, a range of Government policies have been implemented aimed at reducing these gaps.

The most significant of these policies is the Closing the Gap strategy, which is a commitment by all Australian governments to improve the lives of Indigenous Australians, and in particular provide a better future for Indigenous children. In 2008, the Council of Australian Governments (COAG) agreed to specific timeframes for achieving six Closing the Gap targets, relating to Indigenous life expectancy, infant mortality, early childhood development, education and employment.

Simultaneously, throughout Australia and the world, the preservation of the environment has become an increasingly important issue in recent times. Sustainability issues, minimising the effect of human activity on the environment and preserving the environment for future generations have all contributed to enhance societal values relating to the environment. In response, governments across the world have looked to implement policies and programs for environmental management.

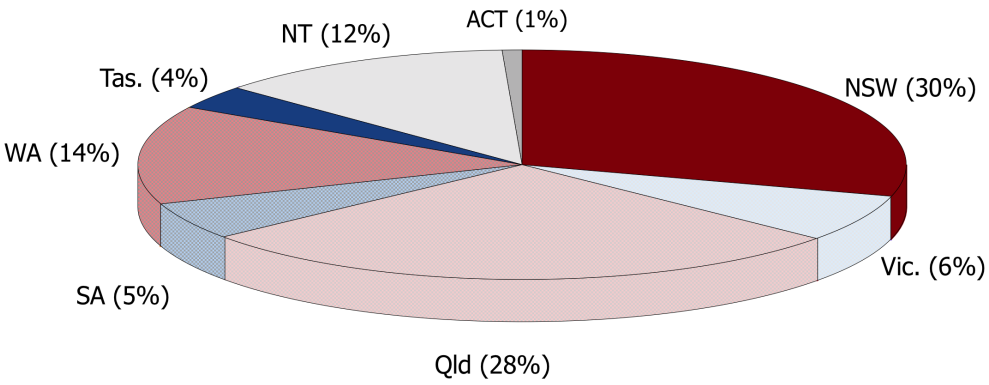
In recognising that protecting the environment is a shared responsibility and seeing an opportunity to link endeavours to protect and conserve the environment with efforts to increase Indigenous employment, the Australian Government through the Department of the Environment, Water, Heritage and the Arts (The Department) established the Working on Country program in 2007. The program intends to advance biodiversity conservation, natural resource and heritage protection and to create sustainable jobs for Indigenous Australians. Working on Country is an element of the Australian Governments Caring for our Country initiative.

A.1 The Indigenous population

There were just over half a million Aboriginal and Torres Strait Islander people in Australia in 2006, comprising 2.5 per cent of the Australian population (ABS Cat. No 3238). The Aboriginal and Torres Straight Islander population is concentrated in New South Wales, Queensland, Western Australia and the Northern Territory, as seen in Figure A.1.

Figure A.1

LOCATION OF INDIGENOUS AUSTRALIANS

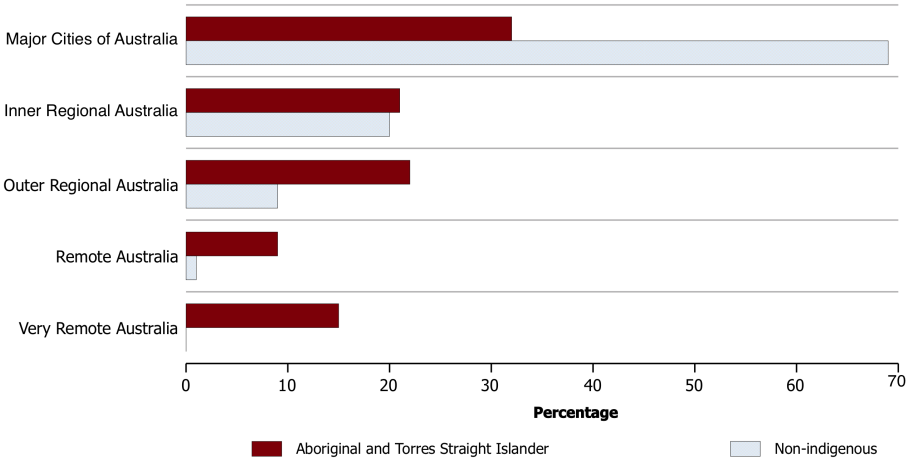


Source: ABS Cat. No. 3238

A significantly smaller proportion of the Indigenous population (when compared to the non-Indigenous population) lives in major cities, as demonstrated in Figure A.2. While a similar proportion of the non-Indigenous and Indigenous population lives in Inner Regional Australia, there is a substantial difference in the proportion of the populations living in Outer Regional, Remote and Very Remote Australia. Just over 45 per cent of Indigenous Australians live in these geographic locations, compared to fewer than 11 per cent of the non-Indigenous population.

Figure A.2

LOCATION OF INDIGENOUS AND NON-INDIGENOUS AUSTRALIANS BY REMOTENESS



Source: ABS Cat. No. 3238

A.2 Indigenous disadvantage

Many Aboriginal and Torres Strait Islander people experience substantial disadvantage, with significant gaps between the Indigenous and non-Indigenous population. Gaps exist in living standards, life expectancy, education, health and employment, as outlined in Box A.1.

Box A.1

GAPS BETWEEN THE INDIGENOUS AND NON-INDIGENOUS POPULATION

Gaps between the Indigenous and non-Indigenous population have been identified in the following areas:

- life expectancy: The Australian Bureau of Statistics estimates for 2009 show life expectancy for Indigenous Australians to be lower than the non-Indigenous population by approximately 11.5 years for males and 9.7 years for females;
- mortality rates: In the period 2002-2006 Indigenous children under five died at around three times the rate of non-Indigenous children (305.2 compared with 102.4 deaths per 100,000). Approximately 83 per cent of Indigenous deaths below age five occurred in the first year of life, and of these nearly half occurred within the first month;
- early childhood development: Indigenous children are less likely to participate in early childhood education. Without preschool learning opportunities, Indigenous students are likely to be behind from their first year of formal schooling;
- education: In 2006 Year 12 completions for Indigenous Australians were 45.3 per cent, compared to 86.3 per cent for other Australians; and
- employment: Indigenous Australian experience much higher levels of unemployment than non-Indigenous Australians. At the time of the 2006 Census, around 48 per cent of the Indigenous workforce-aged population was in employment. This compares to 72 per cent for other Australians – a gap of 24 percentage points.

Source: Australian Government 2011, Closing the Gap: The need to act, <http://www.fahcsia.gov.au/sa/Indigenous/progserv/ctg/Pages/need_to_act.aspx>, Accessed 11 April 2011

A.3 Addressing Indigenous disadvantage

Closing the Gap is a commitment by all Australian governments to improve the lives of Indigenous Australians, and in particular provide a better future for Indigenous children. A national integrated Closing the Gap strategy has been agreed through COAG.

COAG identified seven action areas or 'building blocks' to focus the commitment of all levels of government to work together with Indigenous people to overcome Indigenous disadvantage. These building blocks are:

- Early Childhood;
- Schooling;
- Health;
- Economic Participation;
- Healthy Homes;
- Safe Communities; and
- Governance and Leadership.

In 2008, COAG agreed to specific timeframes for achieving six Closing the Gap targets relating to Indigenous life expectancy, infant mortality, early childhood development, education and employment. The Closing the Gap targets are[5]:

- to close the life-expectancy gap between Indigenous and non-Indigenous Australians by 2031;
- to halve the gap in mortality rates for Indigenous children under five by 2018;
- to ensure access to early childhood education for all Indigenous four years olds in remote communities by 2013;
- to halve the gap in reading, writing and numeracy achievements for children by 2018;
- to halve the gap for Indigenous students in Year 12 (or equivalent) attainment rates by 2020; and
- to halve the gap in employment outcomes between Indigenous and non-Indigenous Australians by 2018.

Notably, the Working on Country program was established with the dual purposes of environmental improvement and the Closing the Gap objective of providing employment to Indigenous Australians. As well as directly addressing employment, the program has a variety of indirect benefits, which have positive impacts on reducing gaps in the other identified areas.

The *Closing the Gap Prime Minister's report 2011*, noted that:

> Progress is being made against the closing the gap targets. For example, significant improvements have been made in child mortality in recent years, although the gap still remains too large. These improvements are encouraging, but after decades of inaction and neglect achieving tangible results in all areas will take ongoing investment and time.
>
> Closing the Gap Prime Minister's Report 2011

At the time of the release of the *Closing the Gap Prime Minister's Report 2011*, the Australian Government outlined their commitment to invest in mainstream and Indigenous specific initiatives to close the gap. Investment is concentrated across the seven building blocks of closing the gap as outlined in Box A.2.

[5] Closing the Gap Prime Minister's Report 2011

Box A.2

GOVERNMENT INVESTMENT TO CLOSE THE GAP

The Government is concentrating its investment across the seven building blocks of closing the gap.

- Early childhood
  - Ten new child and maternal health services to help up to 11,000 Indigenous babies and their mothers will be established over five years. Two of these services have already commenced in Warburton, Western Australia and Ceduna, South Australia.
- Schooling
  - $89.8 million for school projects, such as building new classrooms, science centres and libraries, in the 29 Remote Service Delivery communities across Australia.
- Health
  - The $805.5 million Indigenous Chronic Disease package has created more than 300 new Indigenous health worker positions, as well as tackling chronic disease risk factors and better managing chronic conditions and care.
- Healthy homes
  - An unprecedented $5.5 billion over ten years has been invested through the National Partnership Agreement on Remote Indigenous Housing.
  - Under the National Partnership more than 480 new houses and 1750 rebuilds and refurbishments have been built across the country.
- Safe communities
  - Three permanent police stations have been constructed at Mimili, Amata and Pukatja in the APY Lands in South Australia, giving the communities a permanent police presence for the first time.
  - Forty-five additional Northern Territory Police recruits have completed training and graduated since 2009. A further 15 recruits are expected to graduate in April 2011.
  - Under the Northern Territory Emergency Response, there are now 22 safe places in 17 communities across the Northern Territory. Safe places provided shelter for 491 women, 399 children and 40 men between January 2009 and November 2010.
- Economic participation
  - More than 16,000 Indigenous Australians started employment and around 12,500 began training in 2010 with support from the Indigenous Employment program.
- Governance and leadership

The newly established National Congress of Australia's First Peoples provides a central mechanism with which Government, the corporate and community sector can engage and partner on policy design and implementation with Indigenous people. The Australian Government has provided $22.9 million to establish and run the Congress.

Source: Jenny Macklin 2011, Delivering services to close the gap, < http://www.jennymacklin.fahcsia.gov.au/mediareleases/2011/pages/jm_m_closingthegap_9february2011.aspx >, Accessed 11 April 2011

Whilst the Working on Country program is not directly part of the Closing the Gap initiative, it is important to understand the policy context when assessing its outcomes. As noted, the Working on Country program contributes directly to closing the employment gap and indirectly has a positive effect in a range of other areas (see Chapter 3). The other objective of the program involves environmental management, and contributes a range of environmental benefits. In relation to environmental policy, the Working on Country program is part of the wider Caring for our Country initiative.

A.4 Caring for our Country

Caring for our Country is the way in which the Australian Government funds environmental management of our natural resources. It funds projects that improve biodiversity and sustainable farm practices. This funding supports regional natural resource management groups, local, state and territory governments, Indigenous groups, industry bodies, land managers, farmers, Landcare groups and communities.

Caring for our Country integrates the Australian Government's previous natural resource management initiatives, including the Natural Heritage Trust, the National Landcare program, the Environmental Stewardship program and the Working on Country Indigenous land and sea ranger programs. It establishes national priorities and outcomes to refocus investment on protection of our environment and sustainable management of our natural resources.

The goal of Caring for our Country is to achieve an environment that is healthier, better protected, well managed, resilient, and provides essential ecosystem services in a changing climate. Caring for our Country helps communities, farmers and other land managers protect Australia's natural environment and sustainably produce food and fibre. Box A.3 outlines how the Working on Country program contributes to Caring for our Country.

Box A.3

CARING FOR OUR COUNTRY AND THE WORKING ON COUNTRY PROGRAM

Working on Country projects will contribute to Caring for our Country national priorities by:

- protecting biodiversity and natural icons;
- protecting and rehabilitating coastal environments and critical aquatic habitats;
- supporting natural resource management in northern Australia; and
- enhancing community skills, knowledge and engagement.

Source: Australian Government 2011, Caring for our Country - Working on Country, <http://www.nrm.gov.au/funding/2008/woc.html >, Accessed 11 April 2011

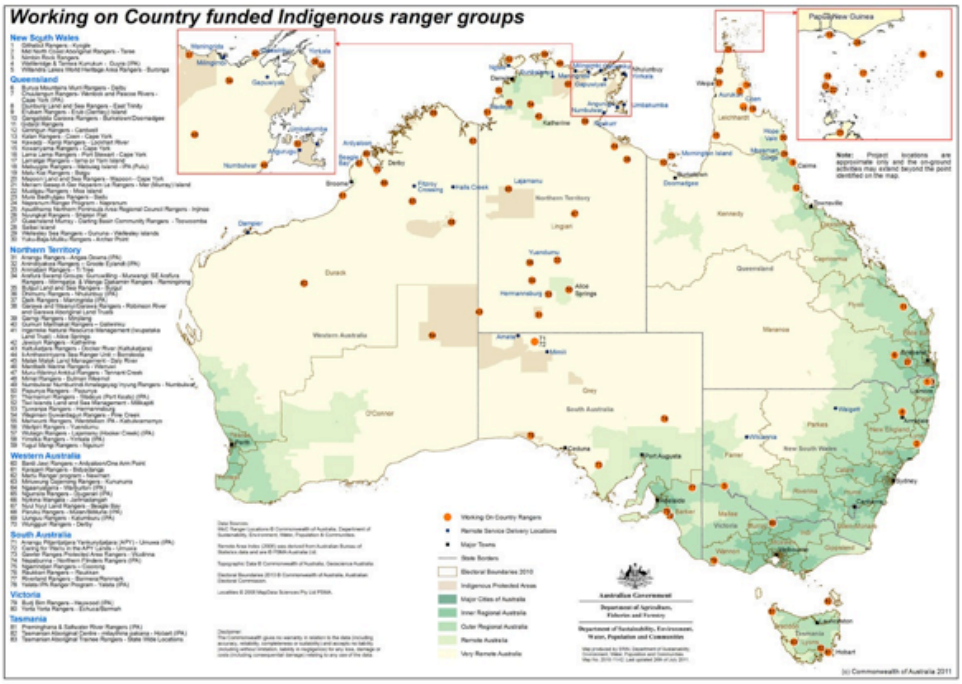
A.5 Working on Country

In recognising that protecting the environment is a shared responsibility and seeing an opportunity to link endeavours to protect and conserve the environment with efforts to increase Indigenous employment, the Australian Government through the then Department of the Environment, Water, Heritage and the Arts, established the Working on Country program in 2007. The program intends to advance biodiversity conservation, natural resource and heritage protection and to create sustainable jobs for Indigenous Australians.

In 2008, the newly elected Australian Government extended Working on Country and committed a further $90 million over five years which includes provisions for an additional 300 Indigenous rangers to be employed. This commitment became an element of the Australian Government's new environmental business plan, Caring for our Country. Working on Country is currently funding over 80 ranger teams across Australia, as seen in Figure A.3.

Figure A.3

WORKING ON COUNTRY FUNDED PROJECTS



Source: Australian Government 2011, Working on Country Funded Projects, <http://www.environment.gov.au/Indigenous/workingoncountry/projects/index.html>, Accessed on 11 April 2011

Working on Country began in 2007 with approximately 100 rangers. Today the program currently employs over 800 rangers. The program builds on Indigenous knowledge of protecting and managing land and sea country, and provides funding for Indigenous people to deliver environmental outcomes to the Australian Government. Responsibility includes looking after nationally important environment matters and protecting land and inland waters, coasts, oceans and heritage.

Working on Country also contributes to the Australian Government's commitment to improving the lives of Indigenous Australians through economic development, and to closing the gap on Indigenous disadvantage.

Objectives

The program allows Indigenous people to maintain their connection with and relationship to their country whilst providing sustainable employment, and has the following objectives[6]:

- Support Indigenous aspirations in caring for country;
- Provide opportunities for Indigenous people to deliver environmental services that protect and manage Australia's environmental and heritage values;
- Provide training and career pathways for Indigenous people in land and sea management in partnership with others; and
- Facilitate a partnership approach between Indigenous people and others to deliver environmental outcomes.

Type of tenure

Approximately 20 per cent of the Australian continent is owned by Indigenous Australians. The Australian Government has recognised that much of this land incorporates many of Australia's most environmentally precious natural assets that are of high importance to the conservation of the environment. However, there are a number of environmental concerns in these areas, which need to be managed. Environmental concerns in these areas include feral animals, exotic weeds, land disturbance, pollution and wildfire and they are likely to come under increasing pressure from climate change.

Initially Working on Country focused on Indigenous-held or leased lands, in recognition of the high environmental values on the Indigenous estate and the lack of resources available to manage these values. However projects on private lands were eligible for funding in certain circumstances (see Box A.4). In response to calls from Indigenous groups, particularly in south-east Australia, who were unable to engage with the program because they did not own land, in 2009 the program broadened to allow Indigenous people to form partnerships with other land owners including local and state agencies, to undertake environmental work on their land.

[6] http://www.fahcsia.gov.au/about/publicationsarticles/corp/BudgetPAES/budget2008-09/IndigenousFactSheets/Pages/ClosingGapIndigAusIndigRangersFS31.aspx

Box A.4

CIRCUMSTANCES FOR CONSIDERATION OF PROJECTS ON PRIVATE LAND

Projects on private lands were able to be considered in certain circumstances where:

- an Indigenous individual, group or organisation has a written access agreement with the landholder;
- there is demonstrated Indigenous support for the project;
- the environmental activities proposed are not legislated requirements that are the primary responsibility of the landholder; for example, feral animal or weed control;
- the landholder contributes toward the total cost of the project in cash and/or in-kind; and
- the environmental activities meet at least one of the key focal areas identified for 2008-2009.

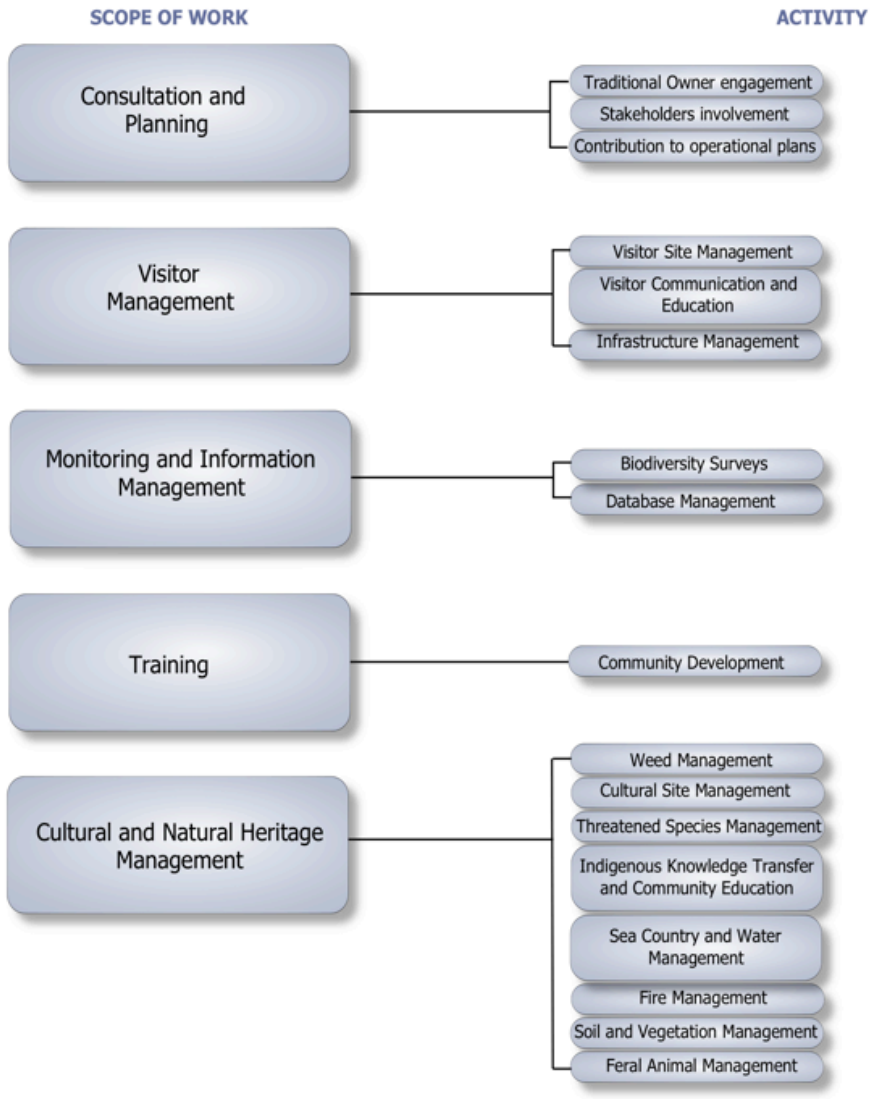
Source: Australian Government 2011, Caring for our Country - Working on Country, <http://www.nrm.gov.au/funding/2008/woc.html >, Accessed 11 April 2011

Work undertaken

A range and variety of differing work is undertaken under the Working on Country program, which involves fostering both environmental and cultural aims, community and stakeholder engagement and information and knowledge management. Figure A.4 outlines the scope of the work undertaken under the Working on Country program and some of the common activities. As illustrated, through the Working on Country program employees undertake a diverse range of work. Such diversity builds individual employees' skills and capabilities and provides important training opportunities, not only for current work but also for future work opportunities.

Figure A.4

SCOPE OF WORK UNDERTAKEN UNDER THE WORKING ON COUNTRY PROJECT



Source: DSEWPaC (2011)

Funding

Working on Country is implemented through a competitive grants process, where applicants seek funds for projects that will deliver environmental outcomes. The program provides funding to applicants to cover wages, administrative and operational costs of projects that make a contribution to the environment in one of three key focal areas — keeping country healthy, looking after sea country and protecting heritage. These focal areas are discussed in Box A.5. Additionally, some funding is available for training and travel costs, for vehicle lease, and for buying equipment and materials, chemicals, safety equipment and tools.

Box A.5

ENVIRONMENTAL FOCAL AREAS

Working on Country funds projects that make a contribution to the environment in at least one of these key focal areas:

- Keeping country healthy: undertaking work to identify, conserve, maintain, manage and repair the land:
  - threatened species, ecological communities and their habitats
  - culturally or regionally significant species, ecological communities and their habitats
  - major environmental pests, weeds and diseases
  - wetlands of national and international significance, including inland rivers
  - migratory species, including migratory waterbirds.
- Looking after sea country: undertaking work to identify, conserve, maintain and manage sea country:
  - threatened species and their habitats
  - culturally or regionally significant species and their habitats.
- Protecting heritage: undertaking work to identify, protect, conserve and celebrate Australia's Indigenous heritage:
  - places on the National Heritage List; or
  - Indigenous heritage values that Indigenous communities have identified in an existing environment or heritage plan.

Source::Australian Government 2011, Caring for our Country - Working on Country, <http://www.nrm.gov.au/funding/2008/woc.html >, Accessed 11 April 2011

In the first call for expressions of interest (in 2007) for Working on Country contracts, some 47 Indigenous communities across Australia sought around $16 million funding for projects. The budget for the first round of contracts was $5.3 million.

The Australian Government funding for Working on Country is $243.1 million until June 2013. There are no new funding rounds currently planned and there is no funding round for Working on Country in 2010-11.

Previous evaluation of the program

In 2010 WalterTurnbull was engaged by the Department to undertake an evaluation of Working on Country. The objectives of the evaluation are outlined in Box A.6.

Box A.6

OBJECTIVES OF THE EVALUATION OF WORKING ON COUNTRY

The objectives of the evaluation were to:

- assess the appropriateness, efficiency, effectiveness and impact of Working on Country, and its delivery by funded Indigenous organisations;
- identify achievements of projects funded under the program, and determine the extent to which project performance and outcomes have met the overall objectives of Working on Country; and
- identify what elements of Working on Country are working and should continue, along with areas where the design or delivery of Working on Country could be improved.

Source: WalterTurnbull 2010, Working on Country Evaluation Report < http://www.environment.gov.au/Indigenous/workingoncountry/publications/pubs/woc-evaluation.pdf>, Accessed 12 April 2011

The evaluation found that generally the Working on Country program was performing well and had been received positively by stakeholders. However, the review did recognise that there were some weaknesses with the program, predominately related to its swift expansion. WalterTurnbull's overall assessment is further discussed in Box A.7.

Box A.7

OVERALL ASSESSMENT OF WORKING ON COUNTRY

The evaluation found that overall, Working on Country is a well functioning program and feedback received from participants, community and other stakeholders in relation to the program, was overwhelmingly positive.

The opportunity for Indigenous people undertaking environmental work on their own land has been recognised as one of, if not the most appropriate means of promoting employment and economic wellbeing within an Indigenous community. Certainty of ongoing funding availability was cited as critical to success of the program in achieving environmental as well as social and cultural objectives.

Many of the weaknesses identified during the evaluation are attributable to the rapid escalation in the scope of the program since its implementation and the challenge in establishing administrative processes to keep up to date with overarching program requirements such as Caring for our Country. In particular the monitoring and evaluation framework and the interrelationship between Working on Country and other programs, such as the Indigenous Protected Area (IPA) program, could be improved.

Source: WalterTurnbull 2010, Working on Country Evaluation Report < http://www.environment.gov.au/Indigenous/workingoncountry/publications/pubs/woc-evaluation.pdf>, Accessed 12 April 2011

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